



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/0 Aug01,2022

Report No.: SZCR230300061103

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TEST REPORT

Application No.: SZCR2303000611AT
Applicant: Reolink Innovation Limited
Address of Applicant: FLAT/RM 705 7/F FA YUEN COMMERCIAL BUILDING 75-77 FA YUEN STREET MONG KOK KL Hong Kong
Manufacturer: Reolink Innovation Limited
Address of Manufacturer: FLAT/RM 705 7/F FA YUEN COMMERCIAL BUILDING 75-77 FA YUEN STREET MONG KOK KL Hong Kong
Factory: Shenzhen Reolink Technology Co., Ltd.
Address of Factory: 2-4th Floor, Building 2, YuanLing Industrial Park, ShangWu, Shiyan Street, Bao'an District, Shenzhen, China
Equipment Under Test (EUT):
EUT Name: WiFi IP Camera
Model No.: Argus PT Ultra
Trade Mark: Reolink
FCC ID: 2AYHE-2302A
Standard(s) : 47 CFR Part 15, Subpart E 15.407
Date of Receipt: 2023-03-09
Date of Test: 2023-03-23 to 2023-04-05
Date of Issue: 2023-04-11

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu

Keny Xu
EMC Laboratory Manager



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch, EMC Laboratory

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2023-04-11		Original

Authorized for issue by:				
		Gebin Sun		
		Gebin Sun/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		



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2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass
Transmission in the Absence of Data		N/A	47 CFR Part 15, Subpart E 15.407 (c)	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Duty Cycle		KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass
99% Bandwidth		KDB 789033 II D	N/A	Pass
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart E 15.407 (e)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions (Above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass
Channel Move Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Closing Transmission Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC5V 2A USB Power Adapter 3.6V 6000mAh rechargeable battery
Cable(s):	USB type-C cable:100cm unshielded
Operation Frequency / Number of channels:	UNII Band I: 5180-5240MHz (4 Channels); UNII Band II-A: 5260-5320 MHz (4 Channels); UNII Band II-C: 5500-5700 MHz (11 Channels) UNII Band III: 5745-5825 (5 Channels)
Modulation Type:	802.11a: OFDM(16QAM, 64QAM, QPSK, BPSK) 802.11n: OFDM(16QAM, 64QAM, QPSK, BPSK)
Channel Spacing:	802.11a/n(HT20): 20MHz;
DFS Function:	Slave without Radar detection
TPC Function:	Without TPC function
Antenna Type:	R-SMA Antenna
Antenna Gain:	2.33dBi

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Apple	A1357	REF. No.SEA05A01A

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	$\pm 3.0\text{dB}$ (150kHz to 30MHz)
Duty Cycle	$\pm 0.37\%$
99% Bandwidth	$\pm 3\%$
26dB Emission bandwidth	$\pm 3\%$
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	$\pm 3\%$
Maximum Conducted output power	$\pm 0.75\text{dB}$
Peak Power spectrum density	$\pm 2.84\text{dB}$
Radiated Emissions (Below 1GHz)	$\pm 4.5\text{dB}$
Radiated Emissions (Above 1GHz)	$\pm 4.8\text{dB}$
Radiated Emissions which fall in the restricted bands	$\pm 4.5\text{dB}$ (below 1GHz); $\pm 4.8\text{dB}$ (above 1GHz);
Frequency Stability	$\pm 7.25 \times 10^{-8}$



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Channel Move Time	$\pm 5.4 \times 10^{-8}$
Channel Closing Transmission Time	$\pm 5.4 \times 10^{-8}$
Remark: The U_{lab} (lab Uncertainty) is less than $U_{CISPR/ETSI}$ (CISPR/ETSI Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.	



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4.4 Test Location

All tests were performed at:

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Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None



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5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2022-05-14	2025-05-13
EMI Test Receiver	Rohde&Schwarz	ESCI	SEM004-02	2023-03-20	2024-03-19
Measurement Software	AUDIX	e3 V8.2014-6-27a	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2022-07-08	2023-07-07
LISN	Rohde&Schwarz	ENV216	SEM007-01	2022-09-20	2023-09-19
LISN	ETS-LINDGREN	3816/2	SEM007-02	2023-03-20	2024-03-19

Duty Cycle					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2022-10-20	2023-10-19
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2022-09-29	2023-09-28
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2022-07-08	2023-07-07
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022-04-07	2023-04-06

99% Bandwidth					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2022-10-20	2023-10-19
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2022-09-29	2023-09-28
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2022-07-08	2023-07-07
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022-04-07	2023-04-06

26dB Emission bandwidth					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2022-10-20	2023-10-19
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2022-09-29	2023-09-28
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A



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Coaxial Cable	SGS	N/A	SEM031-01	2022-07-08	2023-07-07
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022-04-07	2023-04-06

Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2022-10-20	2023-10-19
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2022-09-29	2023-09-28
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2022-07-08	2023-07-07
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022-04-07	2023-04-06

Maximum Conducted output power

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2022-10-20	2023-10-19
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2022-09-29	2023-09-28
Power Sensor	TST PASS	TSPS2023R	SEM009-22	2022-09-21	2023-09-20
Power Sensor	TST PASS	TSPS2023R	SEM009-23	2022-09-21	2023-09-20
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2022-07-08	2023-07-07
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022-04-07	2023-04-06
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

Peak Power spectrum density

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2022-10-20	2023-10-19
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2022-09-29	2023-09-28
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2022-07-08	2023-07-07
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022-04-07	2023-04-06



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Radiated Emissions (Below 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2021-11-30	2023-11-29
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2020-07-19	2023-07-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2022-10-20	2023-10-19
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2021-09-17	2023-09-16
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2023-03-20	2024-03-19
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2022-07-08	2023-07-07

Radiated Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2022-04-02	2025-04-01
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2023-03-20	2024-03-19
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2022-07-24	2024-07-23
Microwave system amplifier	Agilent	83017A	SEM005-25	2022-09-21	2023-09-20
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2022-07-08	2023-07-07

Radiated Emissions which fall in the restricted bands					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2022-04-02	2025-04-01
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2023-03-20	2024-03-19
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2022-07-24	2024-07-23
Microwave system amplifier	Agilent	83017A	SEM005-25	2022-09-21	2023-09-20
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2022-07-08	2023-07-07

Frequency Stability					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2022-10-20	2023-10-19
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2023-03-21	2024-03-20
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2022-09-29	2023-09-28



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Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2022-07-08	2023-07-07
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2022-04-07	2023-04-06
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20

DFS Items:

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Shielding Room	AUDIX	N/A	SEM001-08	2022-05-14	2025-05-13
EXA Signal Analyzer	KEYSIGHT	N9010A	SEM004-09	2023-03-31	2024-03-30
Signal Generator	KEYSIGHT	N5171B	SEM006-13	2023-03-20	2024-03-19
MXG Vector Signal Generator	KEYSIGHT	N5182A	SEM006-14	2023-03-20	2024-03-19
ESG Vector Signal Generator	KEYSIGHT	E4438C	SEM006-15	2022-09-20	2023-09-19
DC Power Supply	KEYSIGHT	E3642A	SEM011-07	2023-03-21	2024-03-20
Manual Step Attenuator	KEYSIGHT	8494B	SEM021-05	2023-03-31	2024-03-30
Manual Step Attenuator	KEYSIGHT	8496B	SEM021-06	2023-03-31	2024-03-30
Power Sensor	TST PASS	TSPS2023R	SEM009-26	2022-09-21	2023-09-20
Power Sensor	TST PASS	TSPS2023R	SEM009-27	2022-09-21	2023-09-20
Power Sensor	TST PASS	TSPS2023R	SEM009-28	2022-09-21	2023-09-20
Power Sensor	TST PASS	TSPS2023R	SEM009-29	2022-09-21	2023-09-20
Programmable Temperature&Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2023-03-21	2024-03-20
Universal Radio Communication Tester	Rohde&Schwarz	CMW500	SEM010-08	2023-03-20	2024-03-19
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM028-01	2022-07-08	2023-07-07

General used equipment

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2022-09-04	2023-09-03
Humidity/ Temperature Indicator	Anymetre	TH101B	SEM002-09	2022-09-04	2023-09-03
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2023-03-23	2024-03-22



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6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Conclusion

Standard Requirement:

Measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2.33dBi.

Antenna location: Refer to external photos.



6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

6.2.2 Conclusion

standard Requirement:

The device shall automatically discontinue transmission in cases of absence of information to transmit, or operational failure. A description on how this is done shall accompany the application for equipment certification. Note that this is not intended to prohibit transmission of control or signalling information or the use of repetitive codes where required by the technology.

EUT Details:

WIFI chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.



7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.2 °C

Humidity: 50.5 % RH

Atmospheric Pressure: 1015 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all



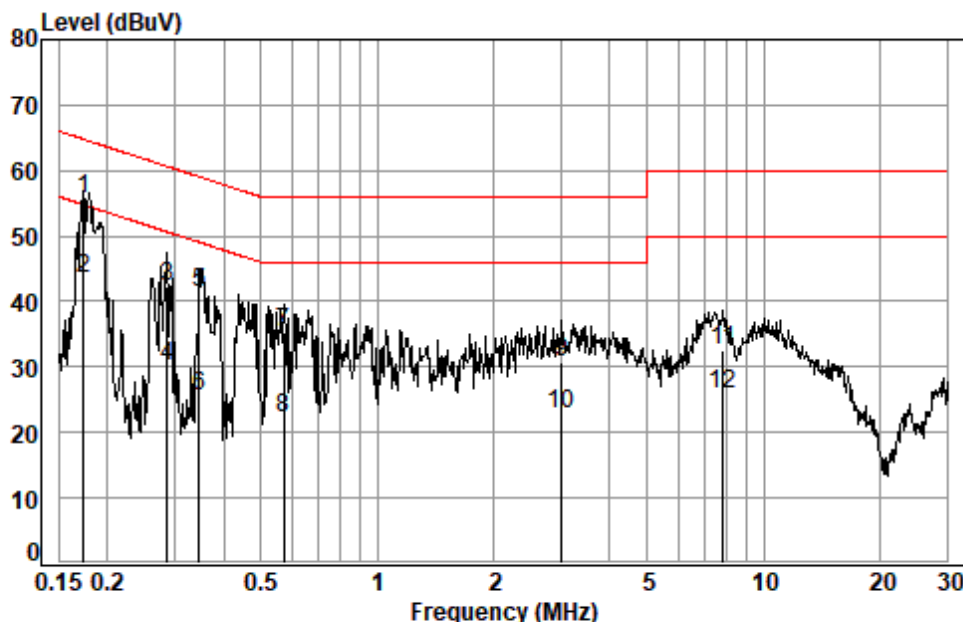
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Test Mode: 05; Line: Live line; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : Shielding Room
Condition: Line
Job No. : 00611AT
Test mode: 05

		Cable	LISN	Read		Limit	Over	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1740	0.03	9.76	45.88	55.67	64.77	-9.10	QP
2 *	0.1740	0.03	9.76	33.75	43.54	54.77	-11.23	Average
3	0.2863	0.04	9.76	32.62	42.42	60.63	-18.21	QP
4	0.2863	0.04	9.76	20.23	30.03	50.63	-20.60	Average
5	0.3465	0.05	9.76	31.71	41.52	59.05	-17.53	QP
6	0.3465	0.05	9.76	15.81	25.62	49.05	-23.43	Average
7	0.5731	0.06	9.77	25.57	35.40	56.00	-20.60	QP
8	0.5731	0.06	9.77	12.25	22.08	46.00	-23.92	Average
9	3.0094	0.12	9.84	20.66	30.62	56.00	-25.38	QP
10	3.0094	0.12	9.84	12.85	22.81	46.00	-23.19	Average
11	7.8516	0.19	10.09	22.26	32.54	60.00	-27.46	QP
12	7.8516	0.19	10.09	15.59	25.87	50.00	-24.13	Average



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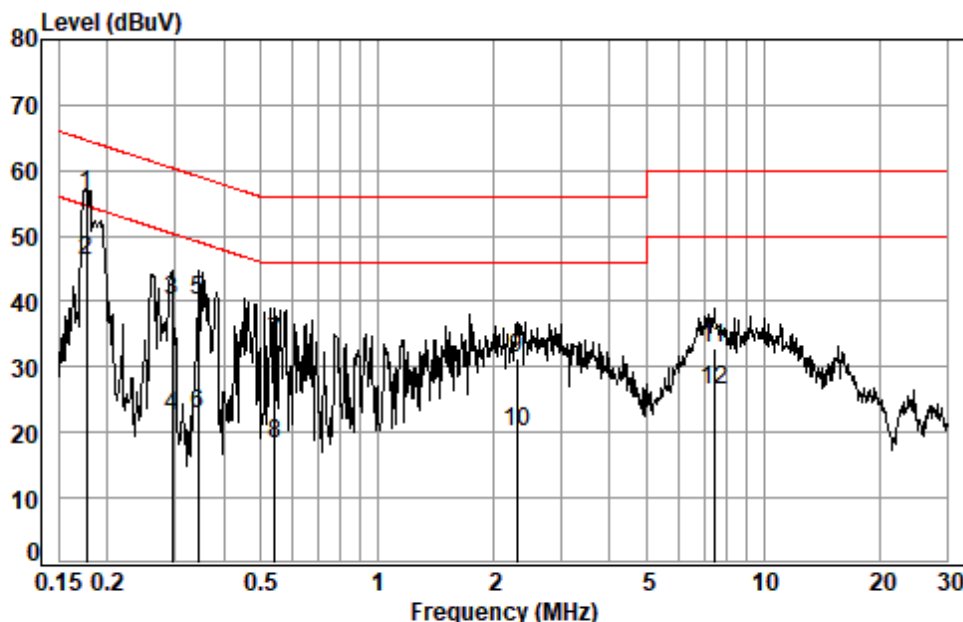
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Test Mode: 05; Line: Neutral Line; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : Shielding Room
Condition: Neutral
Job No. : 00611AT
Test mode: 05

		Cable	LISN	Read		Limit	Over	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 *	0.1768	0.03	9.73	46.43	56.19	64.64	-8.45	QP
2 *	0.1768	0.03	9.73	36.52	46.28	54.64	-8.36	Average
3	0.2940	0.04	9.73	30.48	40.25	60.41	-20.16	QP
4	0.2940	0.04	9.73	12.79	22.56	50.41	-27.85	Average
5	0.3446	0.05	9.74	30.46	40.25	59.09	-18.84	QP
6	0.3446	0.05	9.74	13.09	22.88	49.09	-26.21	Average
7	0.5436	0.06	9.74	23.82	33.62	56.00	-22.38	QP
8	0.5436	0.06	9.74	8.53	18.33	46.00	-27.67	Average
9	2.2968	0.11	9.80	21.48	31.39	56.00	-24.61	QP
10	2.2968	0.11	9.80	10.21	20.12	46.00	-25.88	Average
11	7.4465	0.18	10.09	22.61	32.88	60.00	-27.12	QP
12	7.4465	0.18	10.09	16.16	26.43	50.00	-23.57	Average



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7.2 Duty Cycle

Test Requirement KDB 789033 D02 II B 1

Test Method: KDB 789033 II B 1

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 57.2 % RH Atmospheric Pressure: 1015 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

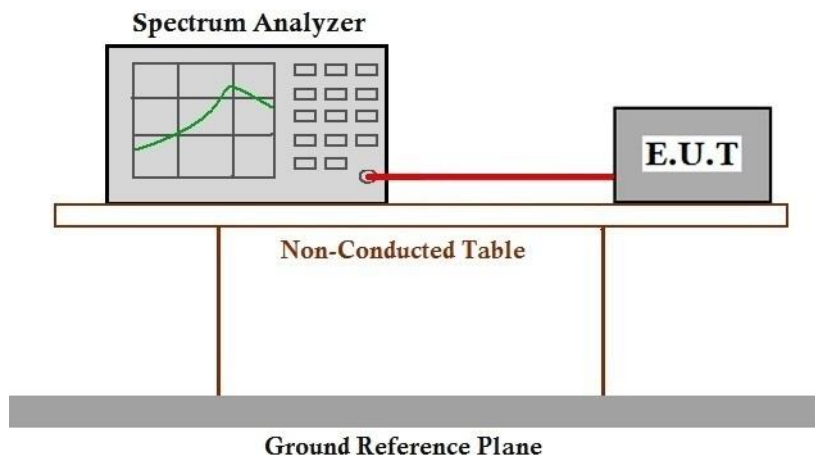


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7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details



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7.3 99% Bandwidth

Test Requirement N/A
Test Method: KDB 789033 II D

7.3.1 E.U.T. Operation

Operating Environment:
Temperature: 25.1 °C Humidity: 57.2 % RH Atmospheric Pressure: 1015 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

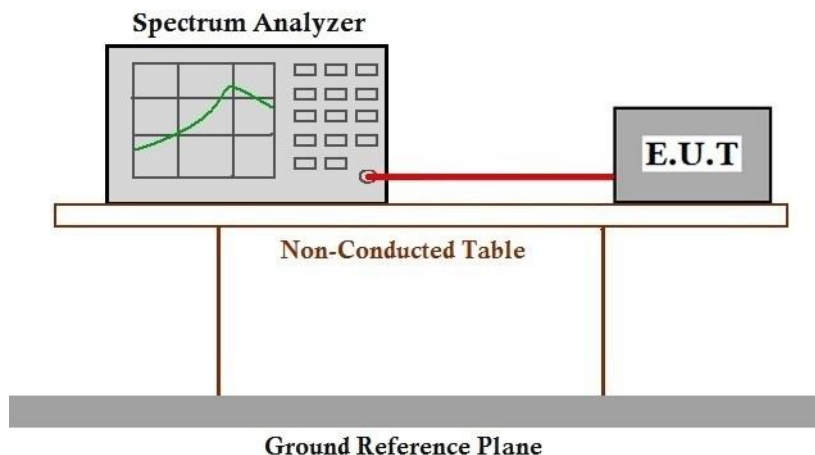


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7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

Please Refer to Appendix for Details



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7.4 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II C 1

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 57.2 % RH Atmospheric Pressure: 1015 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

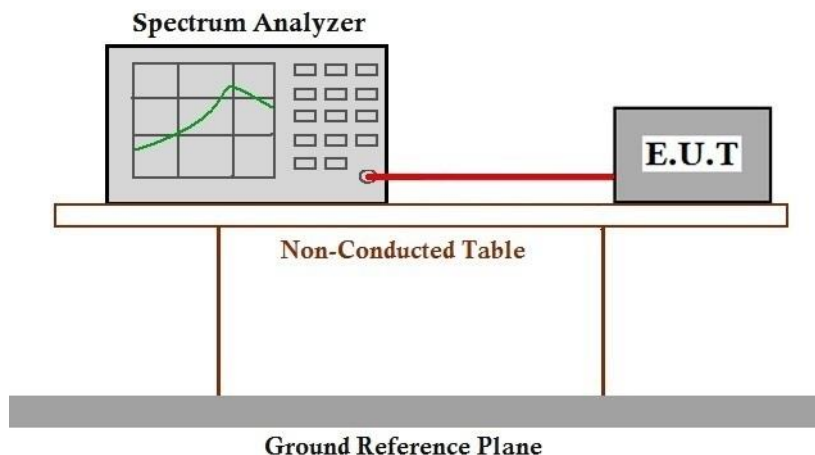


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7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

Please Refer to Appendix for Details



7.5 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)

Test Method: KDB 789033 D02 II C 2

Limit:

Frequency band(MHz)	Limit
5725-5850	≥500 kHz

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C

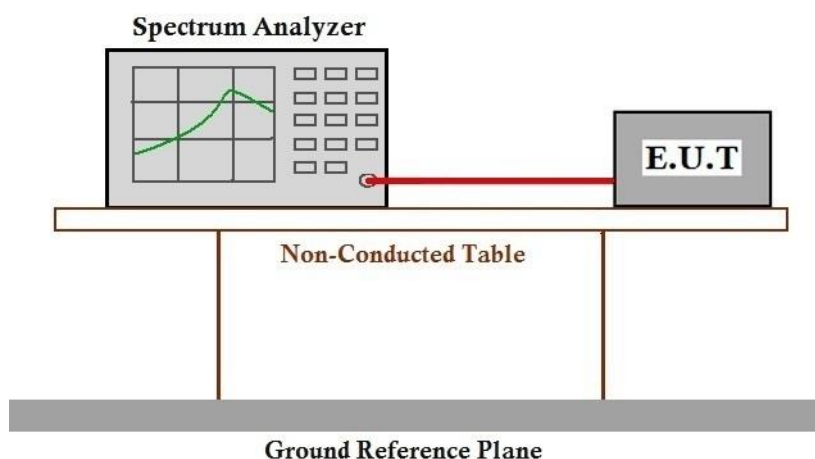
Humidity: 57.2 % RH

Atmospheric Pressure: 1015 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Please Refer to Appendix for Details

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7.6 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II E

Limit:

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) for client device or 11dBm+10logB*
5470-5725	≤250mW(24dBm) for client device or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 57.2 % RH Atmospheric Pressure: 1015 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the



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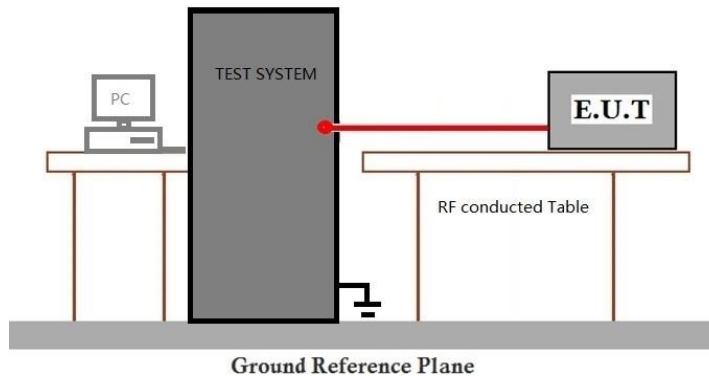
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		report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details

7.7 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: KDB 789033 D02 II F

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz
5470-5725	≤11dBm in 1MHz
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 25.1 °C Humidity: 57.2 % RH Atmospheric Pressure: 1015 mbar

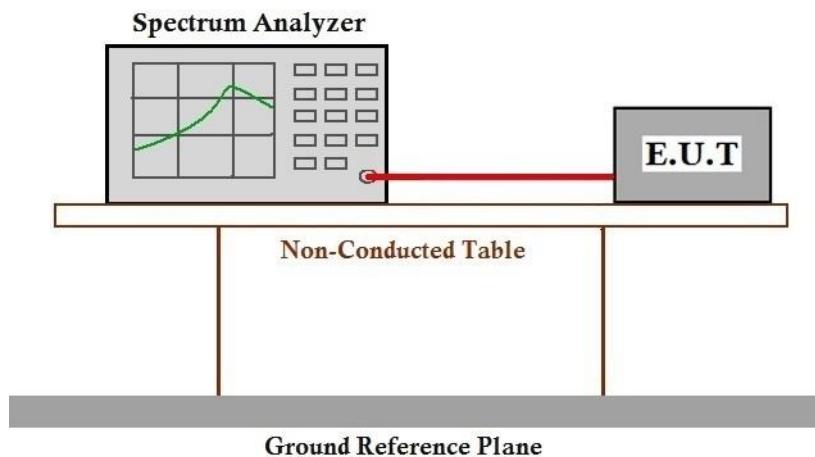
7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and



		found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
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7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

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7.8 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: KDB 789033 D02 II G

Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 20.5 °C

Humidity: 50.5 % RH

Atmospheric Pressure: 1015 mbar

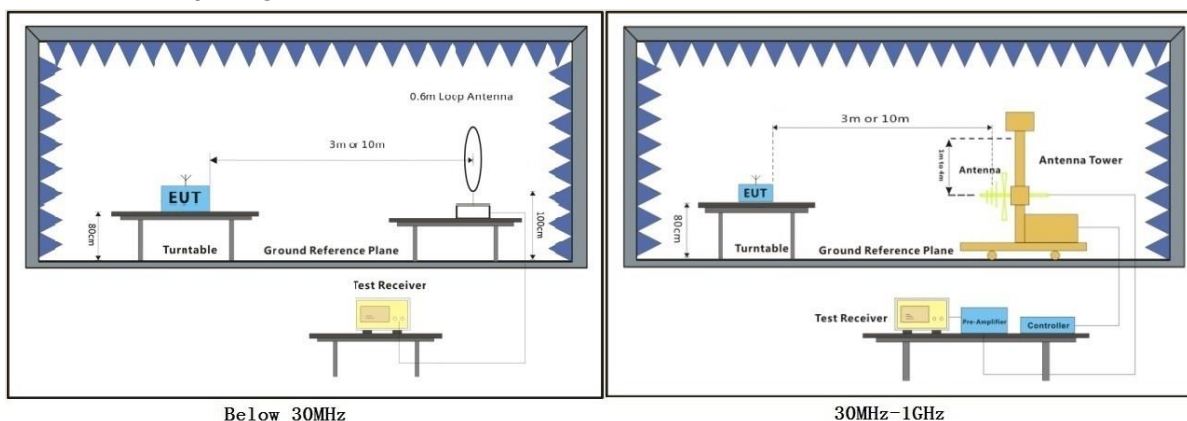
7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Pre-scan	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.



Pre-scan	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
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7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

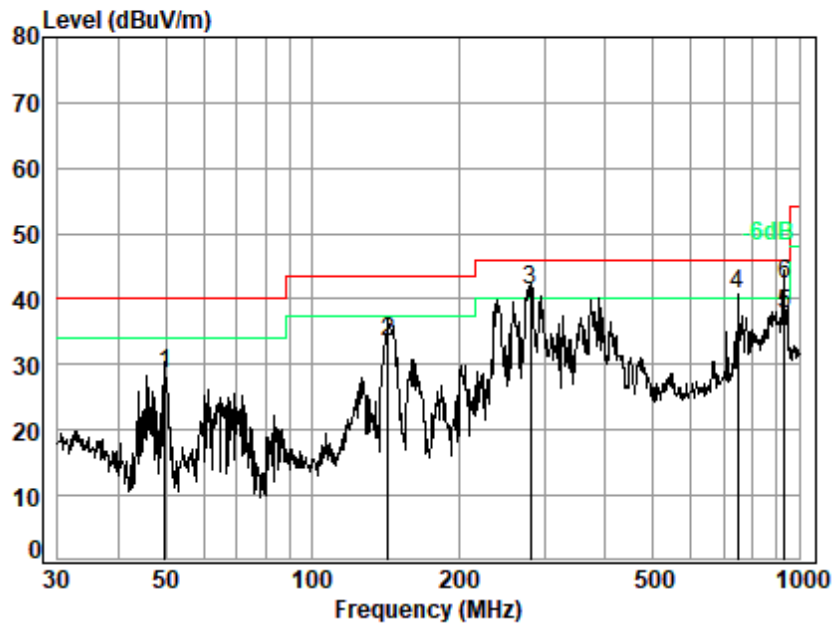
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Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No. : 00611AT
Test Mode: 02

	Ant	Cable	Preamp	Read	Limit	Over	
Freq	Factor	Loss	Factor	Level	Level	Line	Limit Remark
MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB
1	49.71	12.60	0.79	27.17	42.23	28.45	40.00 -11.55 QP
2	143.33	12.19	1.38	26.83	46.87	33.61	43.50 -9.89 QP
3	281.01	17.87	2.04	26.28	47.81	41.44	46.00 -4.56 QP
4	747.48	26.71	3.54	26.51	36.94	40.68	46.00 -5.32 QP
5	932.27	28.48	4.10	25.77	30.92	37.73	46.00 -8.27 QP
6 q	932.27	28.48	4.10	25.77	35.53	42.34	46.00 -3.66 QP



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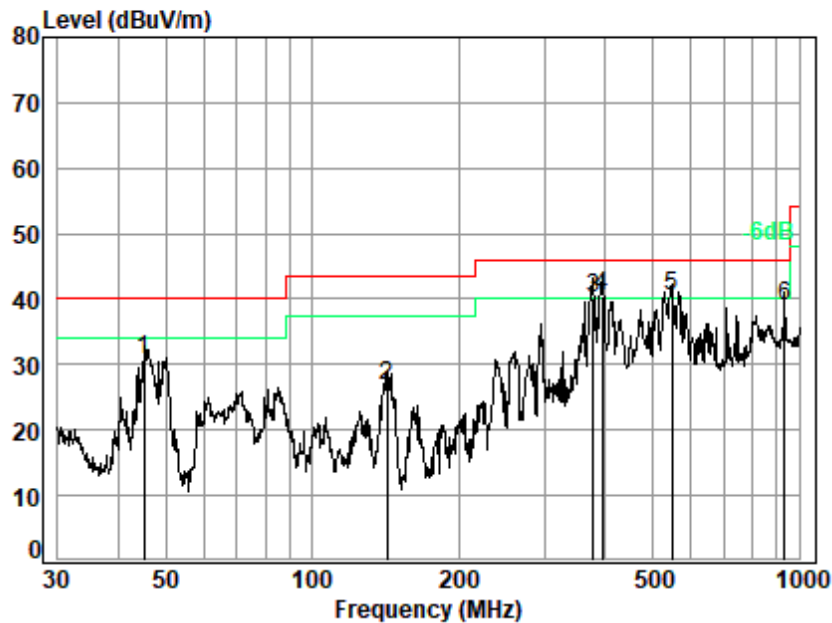
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SZEMC-TRF-01 Rev. A/0 Aug01,2022

Report No.: SZCR230300061103

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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No. : 00611AT
Test Mode: 02

		Ant	Cable	Preamp	Read		Limit	Over	
	Freq	Factor	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	45.06	13.59	0.73	27.18	43.69	30.83	40.00	-9.17	QP
2	142.32	12.07	1.37	26.83	40.26	26.87	43.50	-16.63	QP
3	377.26	21.37	2.40	26.43	42.93	40.27	46.00	-5.73	QP
4 q	393.47	21.57	2.46	26.48	43.05	40.60	46.00	-5.40	QP
5	549.02	24.07	2.96	26.95	40.28	40.36	46.00	-5.64	QP
6	932.27	28.48	4.10	25.77	32.23	39.04	46.00	-6.96	QP



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7.9 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
 Test Method: KDB 789033 D02 II G
 Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3
*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (4) For transmitters operating in the 5.725-5.85 GHz band: (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.		

7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C Humidity: 56.2 % RH Atmospheric Pressure: 1015 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and



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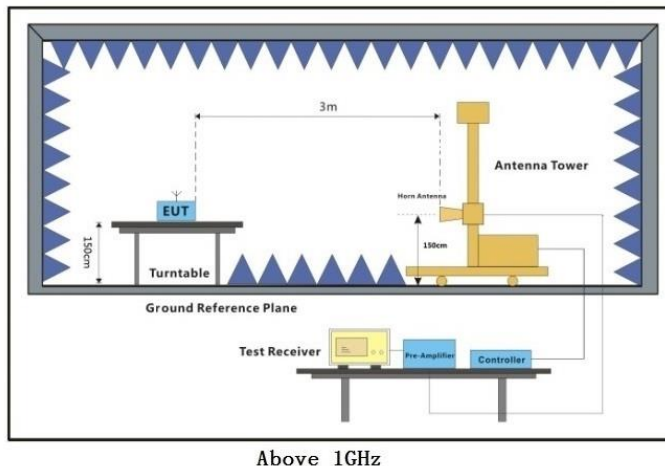
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		found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



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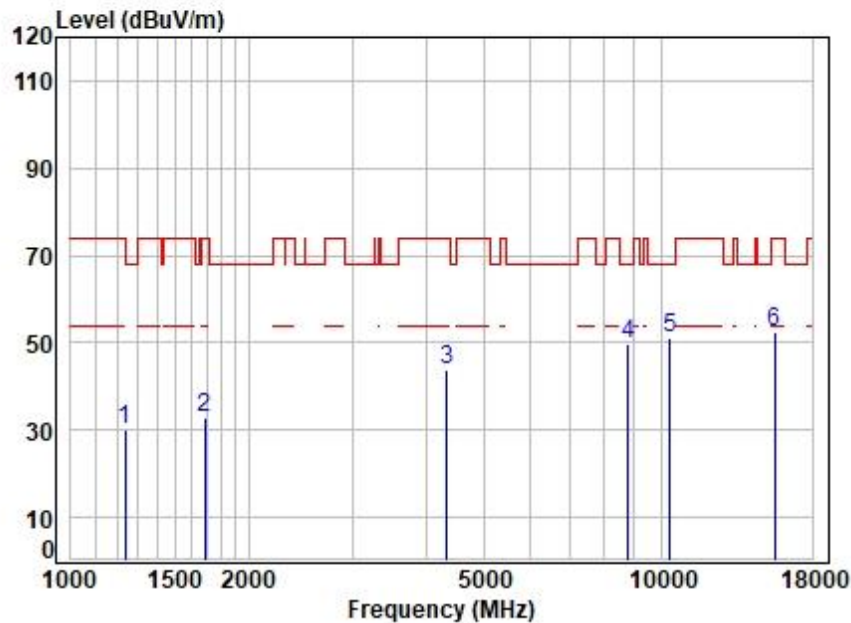
7.9.4 Measurement Procedure and Data

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
5. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.

Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

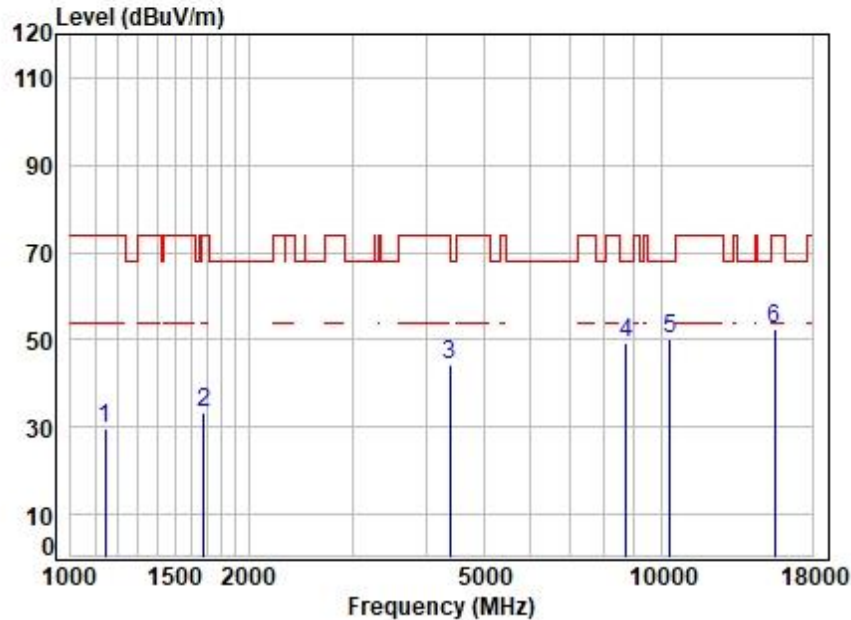


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5180 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1234.909	2.86	24.47	37.61	40.29	30.01	74.00	-43.99	peak
2	1687.347	3.47	26.77	36.43	39.14	32.95	74.00	-41.05	peak
3	4341.886	6.62	33.60	34.57	38.21	43.86	74.00	-30.14	peak
4	8789.516	9.95	36.70	35.62	38.63	49.66	68.20	-18.54	peak
5	10360.000	10.81	37.46	35.74	38.42	50.95	68.20	-17.25	peak
6	15540.000	13.61	40.94	37.47	35.49	52.57	74.00	-21.43	peak



Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

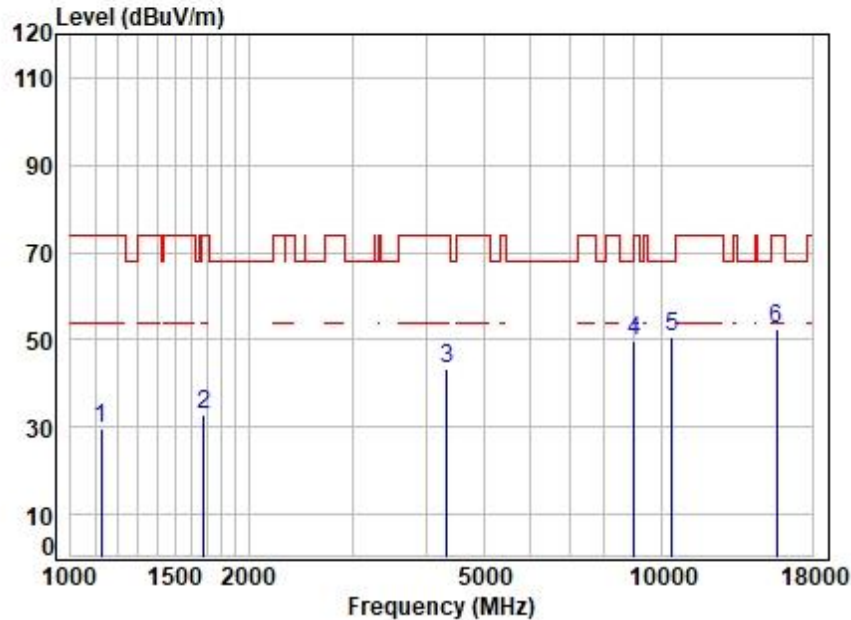


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5180 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
Freq		Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1142.201	2.70	24.17	37.90	40.64	29.61	74.00	-44.39	peak
2	1682.477	3.47	26.77	36.44	39.52	33.32	74.00	-40.68	peak
3	4379.699	6.66	33.54	34.59	38.48	44.09	74.00	-29.91	peak
4	8713.630	9.88	36.70	35.66	38.23	49.15	68.20	-19.05	peak
5	10360.000	10.81	37.46	35.74	37.80	50.33	68.20	-17.87	peak
6	15540.000	13.61	40.94	37.47	35.18	52.26	74.00	-21.74	peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

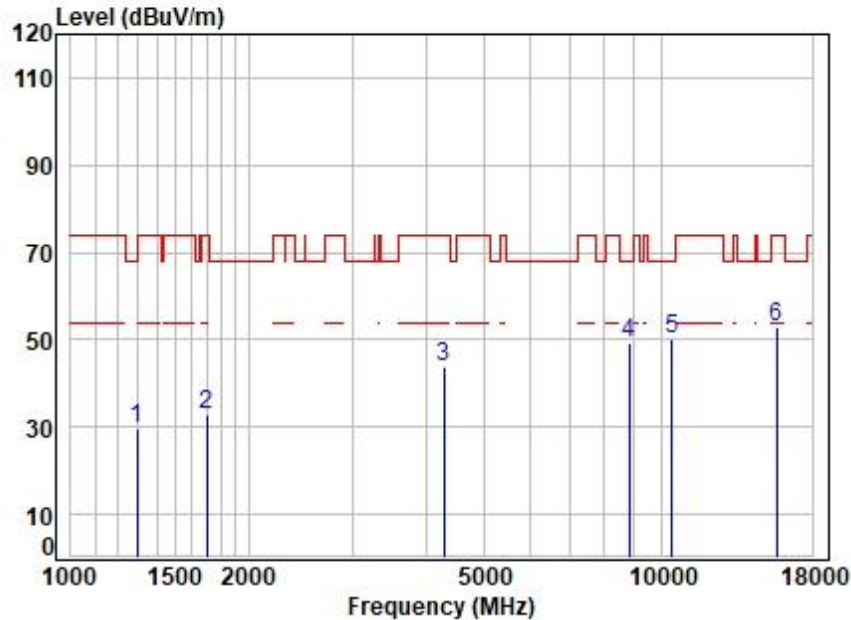


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5220 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1125.813	2.67	24.10	37.95	41.05	29.87	74.00	-44.13	peak
2	1677.621	3.46	26.76	36.45	39.11	32.88	74.00	-41.12	peak
3	4341.886	6.62	33.60	34.57	37.89	43.54	74.00	-30.46	peak
4	8995.123	10.13	36.70	35.50	38.37	49.70	68.20	-18.50	peak
5	10440.000	10.87	37.50	35.77	38.10	50.70	68.20	-17.50	peak
6	15660.000	13.75	41.06	37.52	35.12	52.41	74.00	-21.59	peak



Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

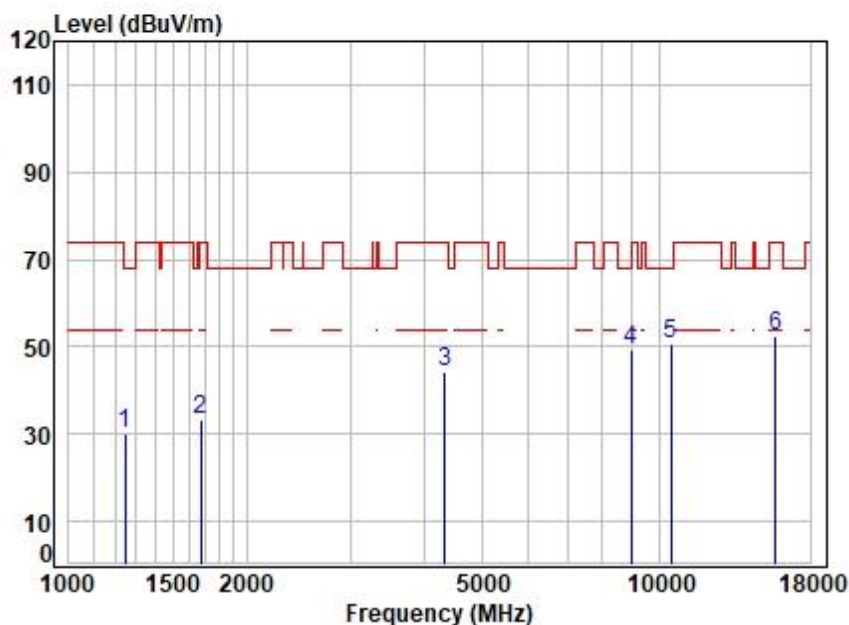


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5220 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1293.359	2.95	24.67	37.43	39.39	29.58	68.20	-38.62	peak
2	1697.129	3.49	26.79	36.41	38.93	32.80	74.00	-41.20	peak
3	4291.977	6.57	33.60	34.54	38.08	43.71	74.00	-30.29	peak
4	8814.957	9.97	36.70	35.60	38.14	49.21	68.20	-18.99	peak
5	10440.000	10.87	37.50	35.77	37.61	50.21	68.20	-17.99	peak
6	15660.000	13.75	41.06	37.52	35.83	53.12	74.00	-20.88	peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5240 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1245.663	2.87	24.49	37.57	40.29	30.08	68.20	-38.12	peak
2	1672.779	3.46	26.75	36.46	39.38	33.13	74.00	-40.87	peak
3	4341.886	6.62	33.60	34.57	38.39	44.04	74.00	-29.96	peak
4	8969.161	10.10	36.70	35.52	38.19	49.47	68.20	-18.73	peak
5	10480.000	10.90	37.50	35.79	37.94	50.55	68.20	-17.65	peak
6	15720.000	13.83	41.14	37.54	34.89	52.32	74.00	-21.68	peak



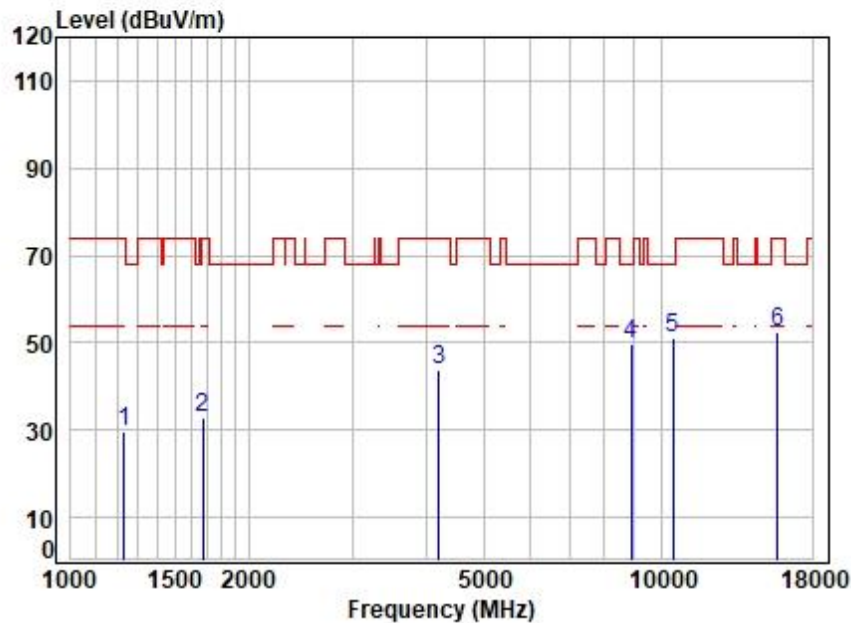
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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

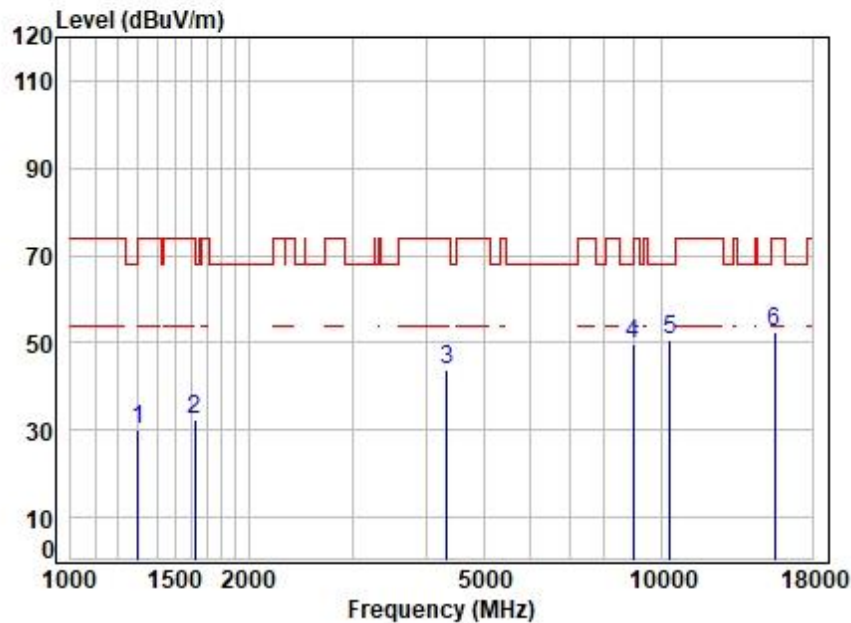


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5240 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1231.345	2.85	24.46	37.62	39.89	29.58	74.00	-44.42	peak
2	1672.779	3.46	26.75	36.46	39.26	33.01	74.00	-40.99	peak
3	4206.011	6.49	33.42	34.48	38.36	43.79	74.00	-30.21	peak
4	8891.725	10.04	36.70	35.56	38.44	49.62	68.20	-18.58	peak
5	10480.000	10.90	37.50	35.79	38.34	50.95	68.20	-17.25	peak
6	15720.000	13.83	41.14	37.54	34.85	52.28	74.00	-21.72	peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
 Condition: 3m HORIZONTAL
 Job No : 00611AT/00612AT
 Mode : 5180 TX RSE
 Note : 5G WIFI 11N20

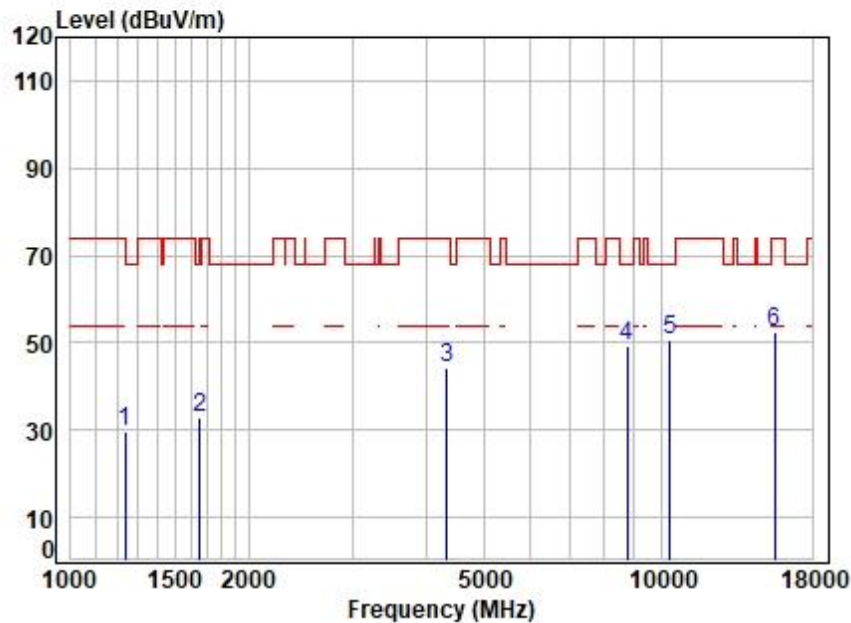
	Freq	Cable Loss	Ant Factor	Preamplifier	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1300.858	2.96	24.70	37.41	39.81	30.06	74.00	-43.94	peak
2	1620.431	3.39	26.58	36.58	38.90	32.29	74.00	-41.71	peak
3	4341.886	6.62	33.60	34.57	38.30	43.95	74.00	-30.05	peak
4	8969.161	10.10	36.70	35.52	38.23	49.51	68.20	-18.69	peak
5	10360.000	10.81	37.46	35.74	38.17	50.70	68.20	-17.50	peak
6	15540.000	13.61	40.94	37.47	35.53	52.61	74.00	-21.39	peak



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Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

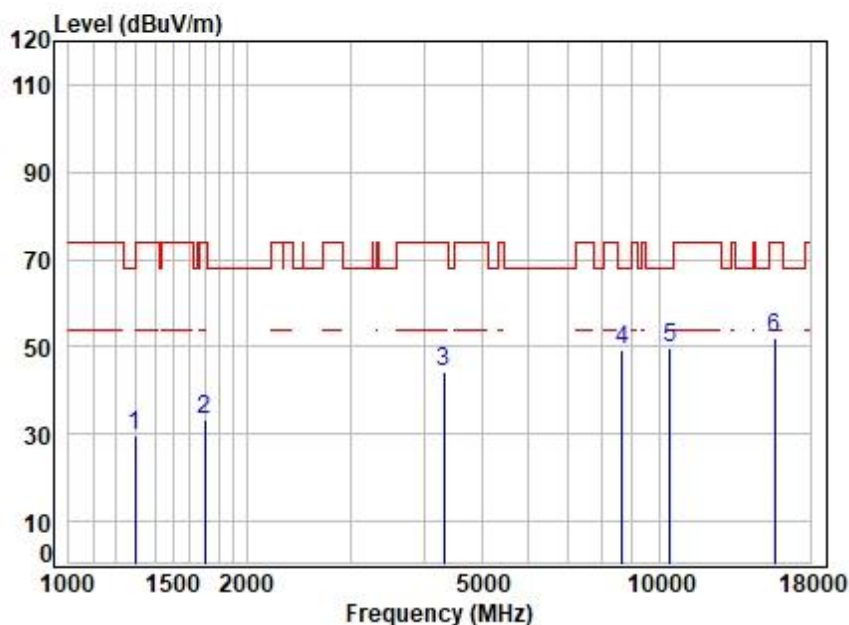


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5180 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
Freq		Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1238.483	2.86	24.48	37.59	39.96	29.71	74.00	-44.29	peak
2	1653.550	3.43	26.71	36.51	39.33	32.96	68.20	-35.24	peak
3	4329.354	6.61	33.60	34.56	38.47	44.12	74.00	-29.88	peak
4	8764.146	9.92	36.70	35.63	38.43	49.42	68.20	-18.78	peak
5	10360.000	10.81	37.46	35.74	37.98	50.51	68.20	-17.69	peak
6	15540.000	13.61	40.94	37.47	35.53	52.61	74.00	-21.39	peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5220 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1297.103	2.95	24.69	37.42	39.53	29.75	68.20	-38.45	peak
2	1702.042	3.49	26.80	36.40	39.33	33.22	74.00	-40.78	peak
3	4316.859	6.60	33.60	34.55	38.51	44.16	74.00	-29.84	peak
4	8663.404	9.84	36.63	35.69	38.49	49.27	68.20	-18.93	peak
5	10440.000	10.87	37.50	35.77	37.18	49.78	68.20	-18.42	peak
6	15660.000	13.75	41.06	37.52	34.65	51.94	74.00	-22.06	peak



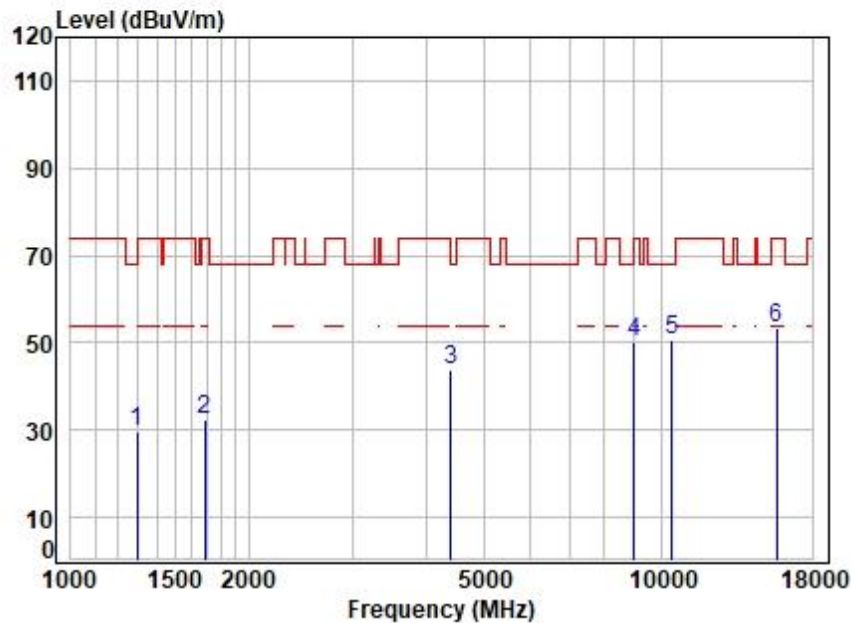
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Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

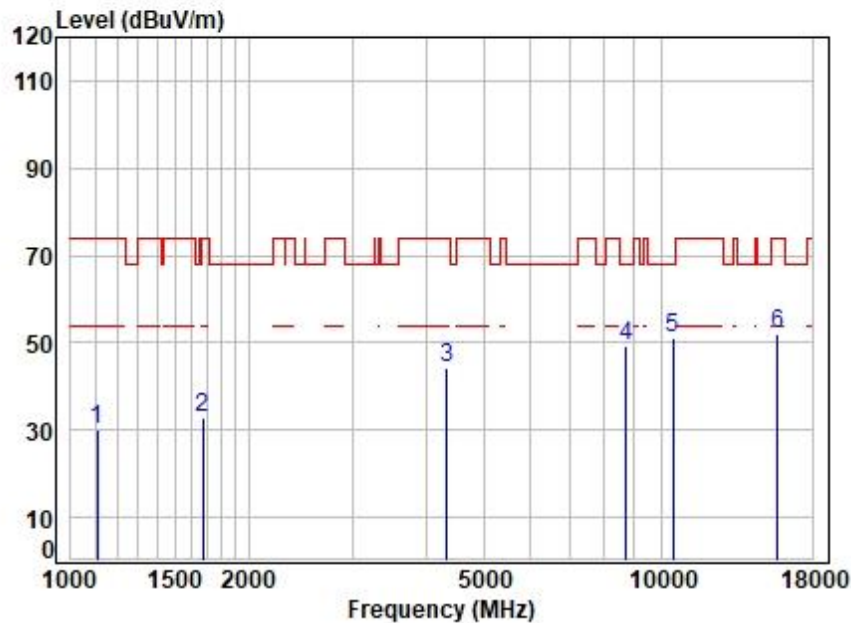


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5220 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1293.359	2.95	24.67	37.43	39.69	29.88	68.20	-38.32	peak
2	1687.347	3.47	26.77	36.43	38.43	32.24	74.00	-41.76	peak
3	4405.090	6.68	33.50	34.61	38.27	43.84	68.20	-24.36	peak
4	8995.123	10.13	36.70	35.50	38.73	50.06	68.20	-18.14	peak
5	10440.000	10.87	37.50	35.77	38.12	50.72	68.20	-17.48	peak
6	15660.000	13.75	41.06	37.52	35.97	53.26	74.00	-20.74	peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High

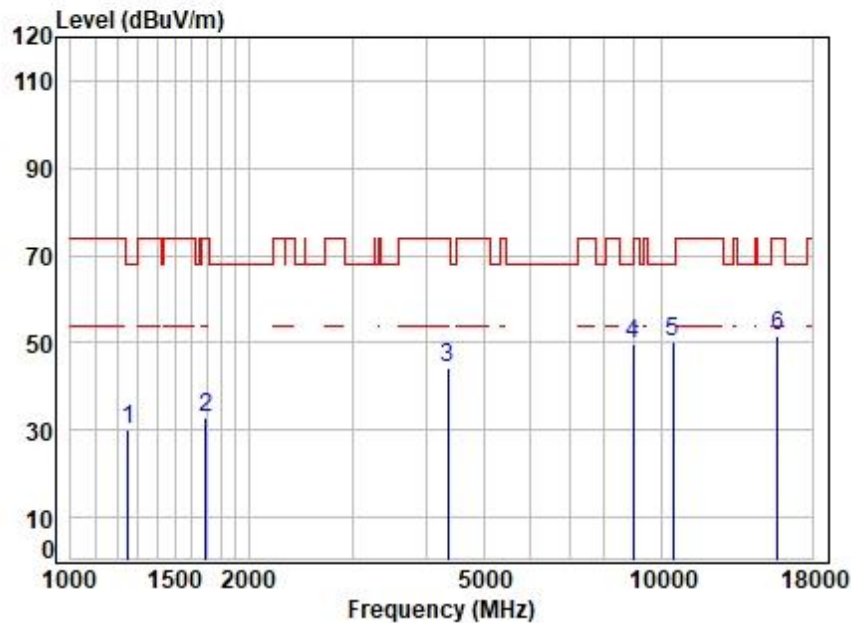


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5240 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1109.660	2.65	24.04	38.01	41.25	29.93	74.00	-44.07	peak
2	1672.779	3.46	26.75	36.46	39.23	32.98	74.00	-41.02	peak
3	4341.886	6.62	33.60	34.57	38.49	44.14	74.00	-29.86	peak
4	8713.630	9.88	36.70	35.66	38.47	49.39	68.20	-18.81	peak
5	10480.000	10.90	37.50	35.79	38.36	50.97	68.20	-17.23	peak
6	15720.000	13.83	41.14	37.54	34.44	51.87	74.00	-22.13	peak



Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High

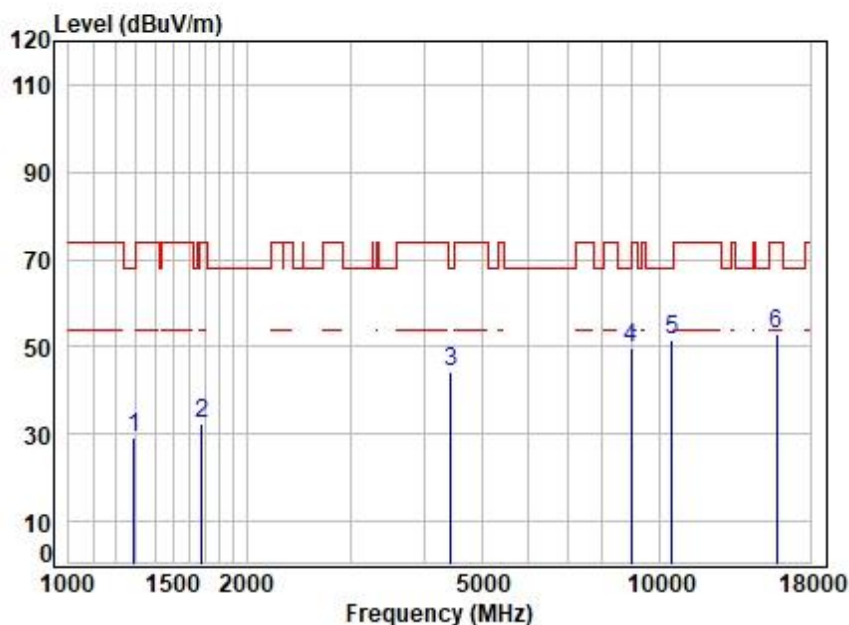


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5240 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1252.885	2.89	24.51	37.55	40.34	30.19	68.20	-38.01	peak
2	1692.231	3.48	26.78	36.42	38.91	32.75	74.00	-41.25	peak
3	4354.454	6.63	33.59	34.58	38.41	44.05	74.00	-29.95	peak
4	8969.161	10.10	36.70	35.52	38.64	49.92	68.20	-18.28	peak
5	10480.000	10.90	37.50	35.79	37.78	50.39	68.20	-17.81	peak
6	15720.000	13.83	41.14	37.54	34.21	51.64	74.00	-22.36	peak



Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5260 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1289.627	2.94	24.66	37.44	39.25	29.41	68.20	-38.79	peak
2	1682.477	3.47	26.77	36.44	38.82	32.62	74.00	-41.38	peak
3	4443.453	6.72	33.50	34.64	38.60	44.18	68.20	-24.02	peak
4	8969.161	10.10	36.70	35.52	38.56	49.84	68.20	-18.36	peak
5	10520.000	10.93	37.52	35.80	38.73	51.38	68.20	-16.82	peak
6	15780.000	13.90	41.26	37.56	35.55	53.15	74.00	-20.85	peak

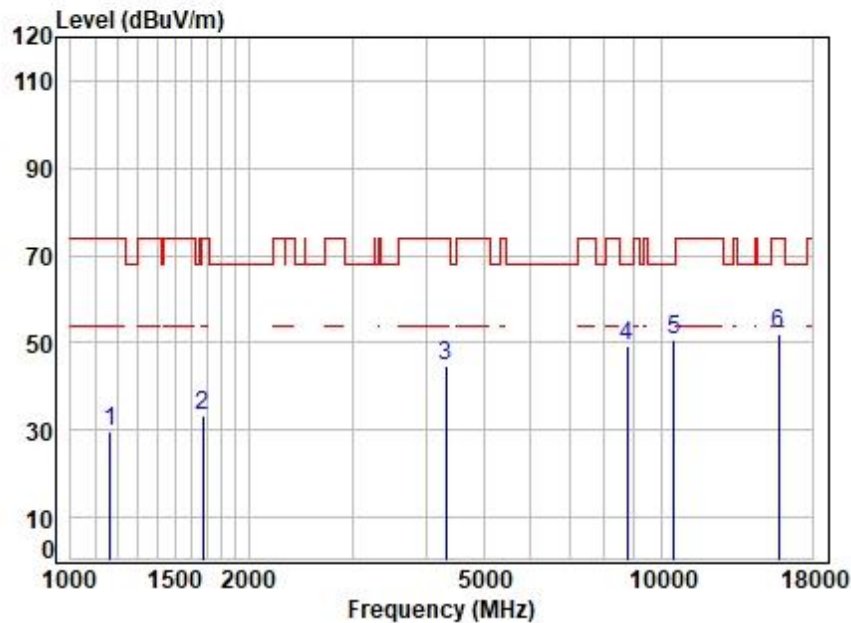
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Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5260 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1165.546	2.74	24.26	37.82	40.29	29.47	74.00	-44.53	peak
2	1672.779	3.46	26.75	36.46	39.63	33.38	74.00	-40.62	peak
3	4316.859	6.60	33.60	34.55	38.87	44.52	74.00	-29.48	peak
4	8764.146	9.92	36.70	35.63	38.26	49.25	68.20	-18.95	peak
5	10520.000	10.93	37.52	35.80	37.94	50.59	68.20	-17.61	peak
6	15780.000	13.90	41.26	37.56	34.58	52.18	74.00	-21.82	peak

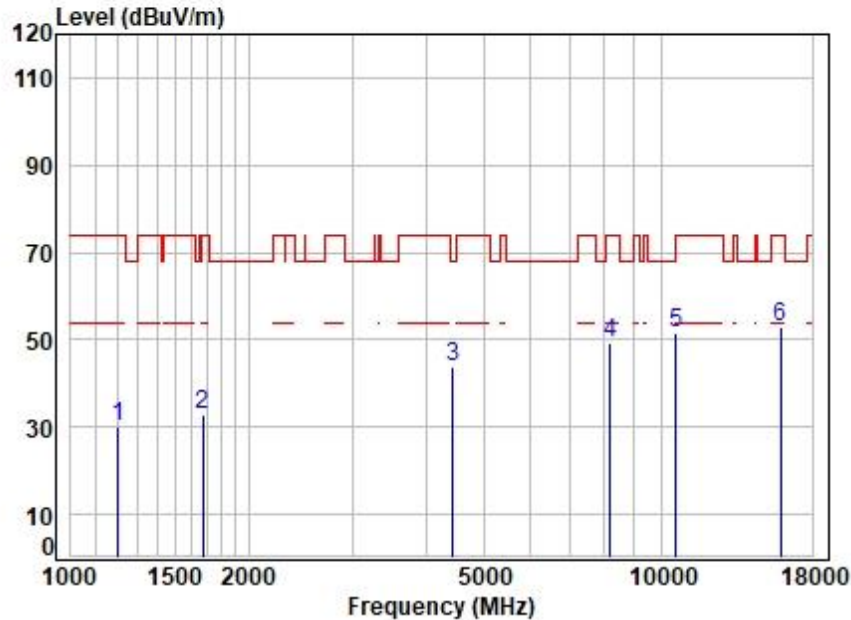


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Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

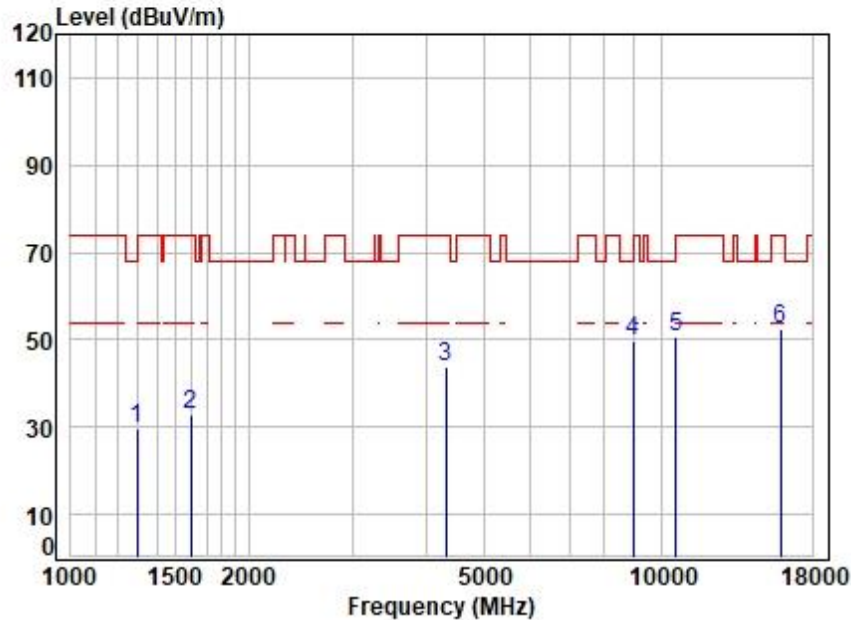


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5300 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1203.199	2.81	24.41	37.70	40.66	30.18	74.00	-43.82	peak
2	1672.779	3.46	26.75	36.46	39.02	32.77	74.00	-41.23	peak
3	4443.453	6.72	33.50	34.64	38.22	43.80	68.20	-24.40	peak
4	8200.463	9.41	36.40	35.97	39.62	49.46	74.00	-24.54	peak
5	10600.000	10.98	37.60	35.84	38.75	51.49	68.20	-16.71	peak
6	15900.000	14.04	41.50	37.61	35.08	53.01	74.00	-20.99	peak



Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

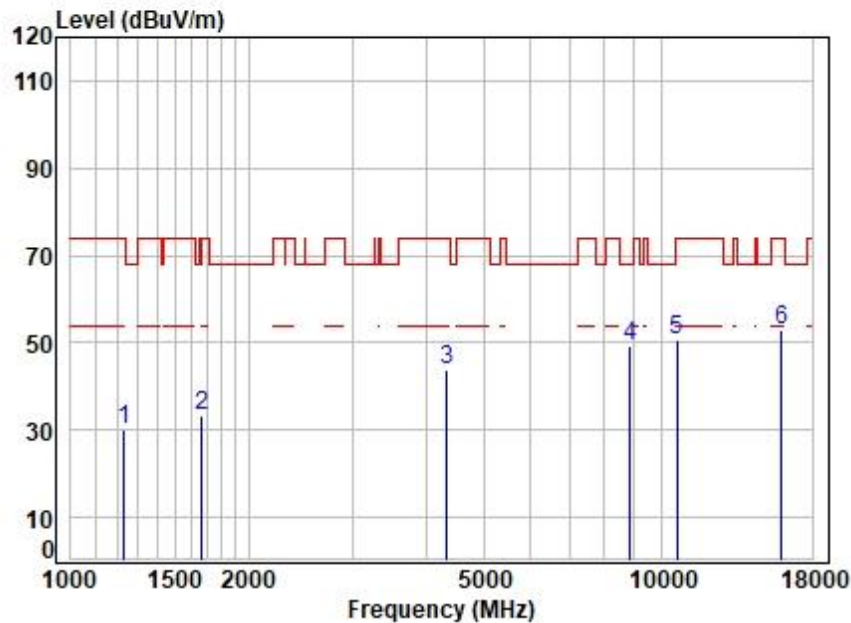


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5300 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1293.359	2.95	24.67	37.43	39.67	29.86	68.20	-38.34	peak
2	1597.181	3.37	26.47	36.64	39.62	32.82	74.00	-41.18	peak
3	4316.859	6.60	33.60	34.55	38.07	43.72	74.00	-30.28	peak
4	8943.274	10.08	36.70	35.53	38.41	49.66	68.20	-18.54	peak
5	10600.000	10.98	37.60	35.84	37.98	50.72	68.20	-17.48	peak
6	15900.000	14.04	41.50	37.61	34.57	52.50	74.00	-21.50	peak



Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

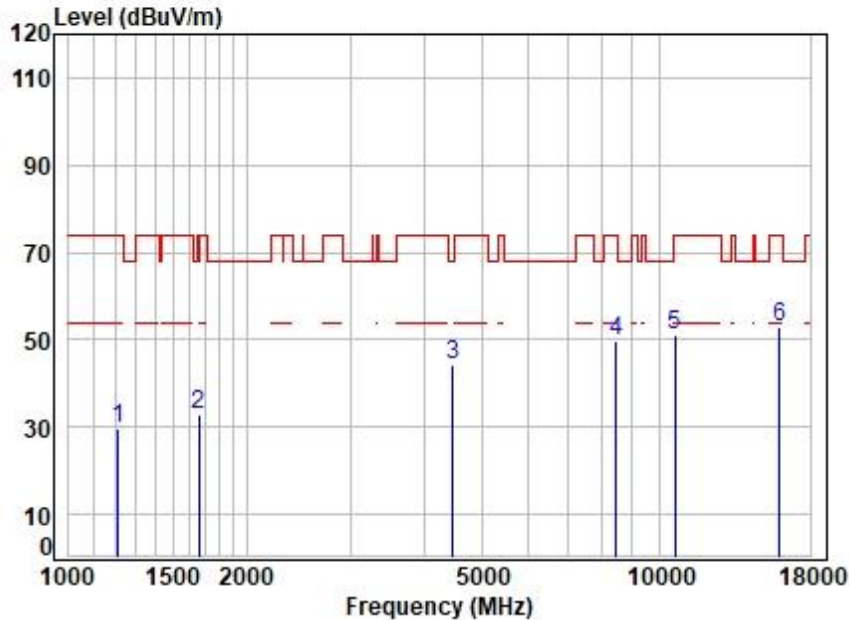


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5320 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
Freq		Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1231.345	2.85	24.46	37.62	40.33	30.02	74.00	-43.98	peak
2	1667.951	3.45	26.74	36.47	39.39	33.11	74.00	-40.89	peak
3	4341.886	6.62	33.60	34.57	38.03	43.68	74.00	-30.32	peak
4	8866.062	10.01	36.70	35.58	38.29	49.42	68.20	-18.78	peak
5	10640.000	11.01	37.60	35.85	38.07	50.83	74.00	-23.17	peak
6	15960.000	14.11	41.56	37.63	34.88	52.92	74.00	-21.08	peak



Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5320 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1213.677	2.82	24.43	37.67	40.06	29.64	74.00	-44.36	peak
2	1663.137	3.45	26.73	36.48	38.99	32.69	74.00	-41.31	peak
3	4469.214	6.74	33.50	34.65	38.45	44.04	68.20	-24.16	peak
4	8465.379	9.66	36.43	35.81	39.32	49.60	74.00	-24.40	peak
5	10640.000	11.01	37.60	35.85	38.14	50.90	74.00	-23.10	peak
6	15960.000	14.11	41.56	37.63	35.07	53.11	74.00	-20.89	peak



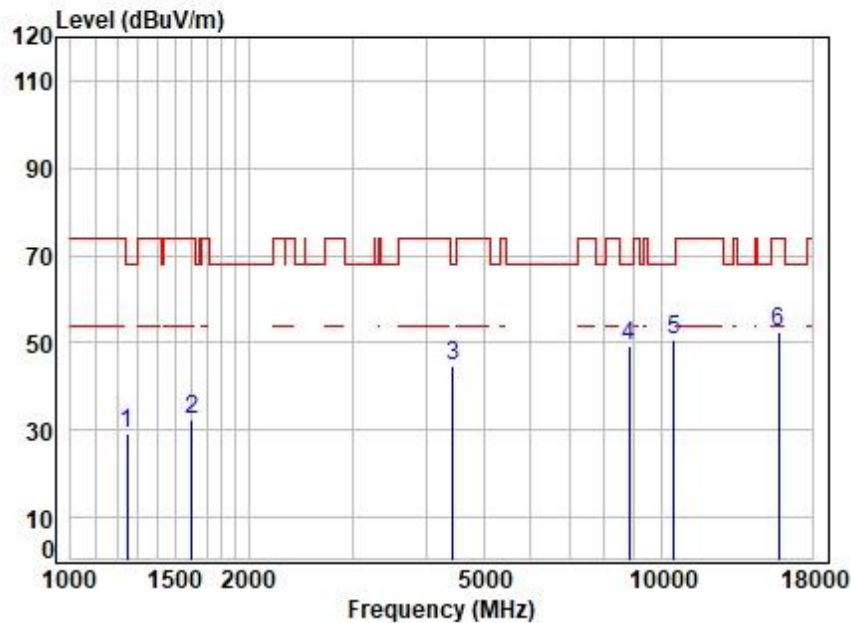
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Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5260 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1245.663	2.87	24.49	37.57	39.39	29.18	68.20	-39.02	peak
2	1601.804	3.37	26.51	36.63	39.19	32.44	74.00	-41.56	peak
3	4430.628	6.71	33.50	34.63	39.06	44.64	68.20	-23.56	peak
4	8814.957	9.97	36.70	35.60	38.17	49.24	68.20	-18.96	peak
5	10520.000	10.93	37.52	35.80	38.21	50.86	68.20	-17.34	peak
6	15780.000	13.90	41.26	37.56	34.96	52.56	74.00	-21.44	peak

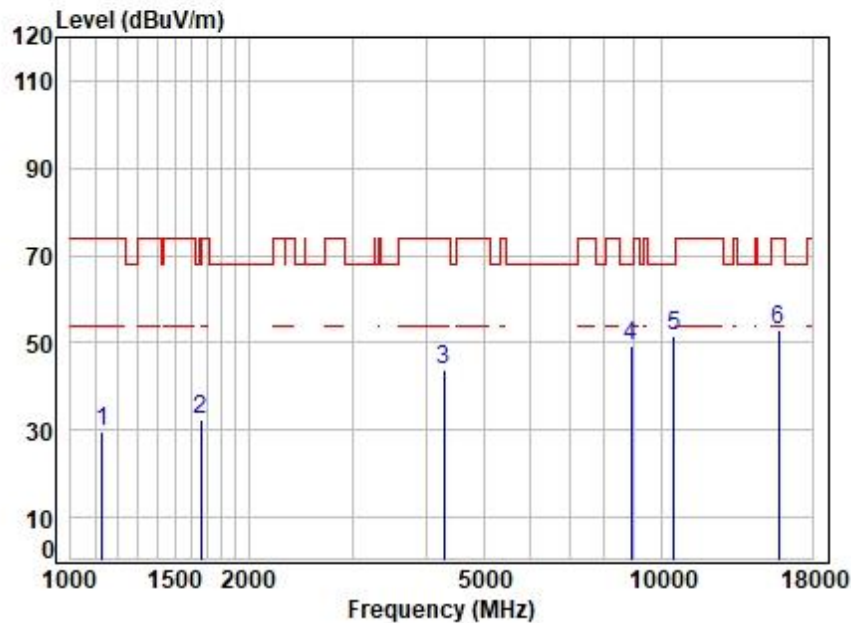


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Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5260 TX RSE
Note : 5G WIFI 11N20

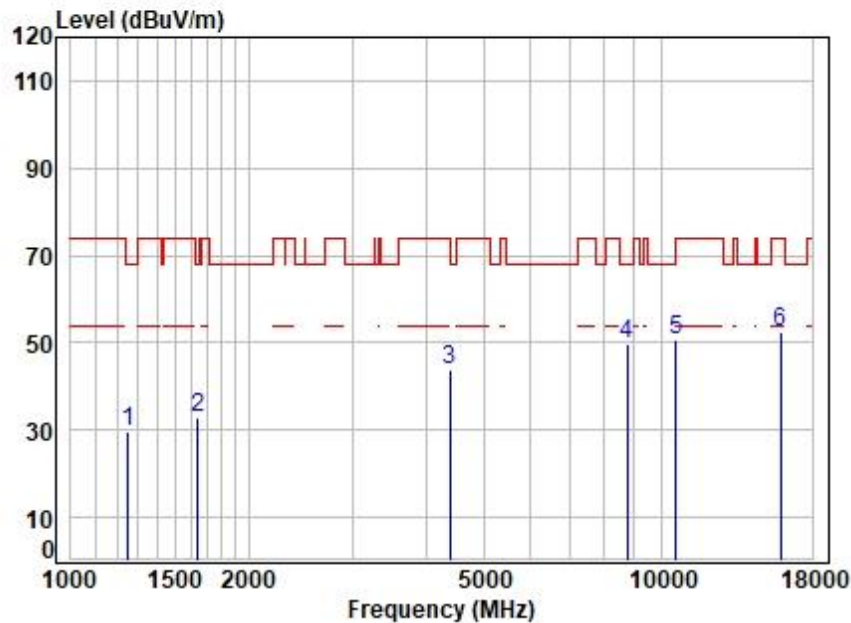
		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1132.340	2.69	24.13	37.93	40.94	29.83	74.00	-44.17	peak
2	1663.137	3.45	26.73	36.48	38.91	32.61	74.00	-41.39	peak
3	4279.589	6.56	33.60	34.53	38.29	43.92	74.00	-30.08	peak
4	8891.725	10.04	36.70	35.56	38.13	49.31	68.20	-18.89	peak
5	10520.000	10.93	37.52	35.80	38.93	51.58	68.20	-16.62	peak
6	15780.000	13.90	41.26	37.56	35.24	52.84	74.00	-21.16	peak



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Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

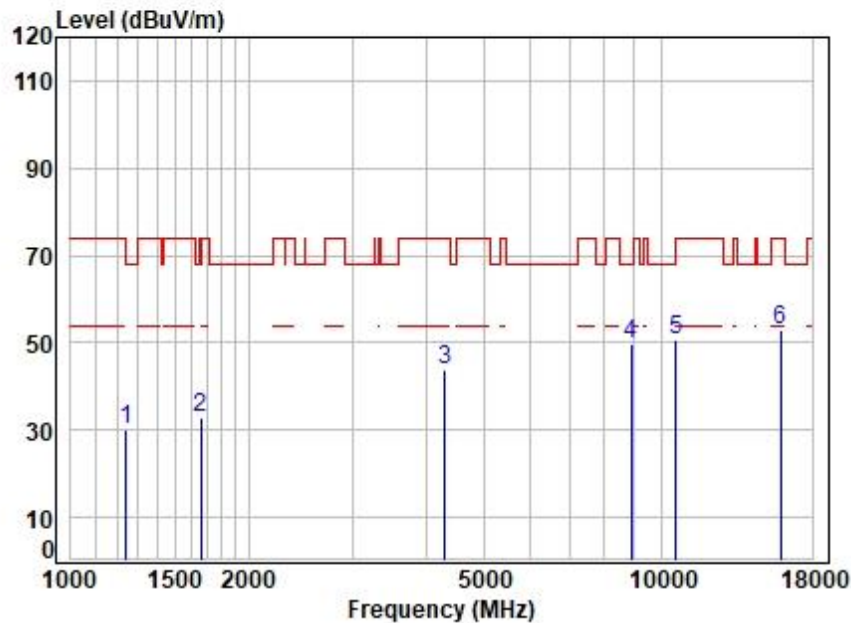


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5300 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1249.269	2.88	24.50	37.56	39.83	29.65	68.20	-38.55	peak
2	1639.274	3.42	26.66	36.54	39.19	32.73	68.20	-35.47	peak
3	4379.699	6.66	33.54	34.59	38.30	43.91	74.00	-30.09	peak
4	8738.852	9.90	36.70	35.65	38.67	49.62	68.20	-18.58	peak
5	10600.000	10.98	37.60	35.84	37.84	50.58	68.20	-17.62	peak
6	15900.000	14.04	41.50	37.61	34.62	52.55	74.00	-21.45	peak



Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

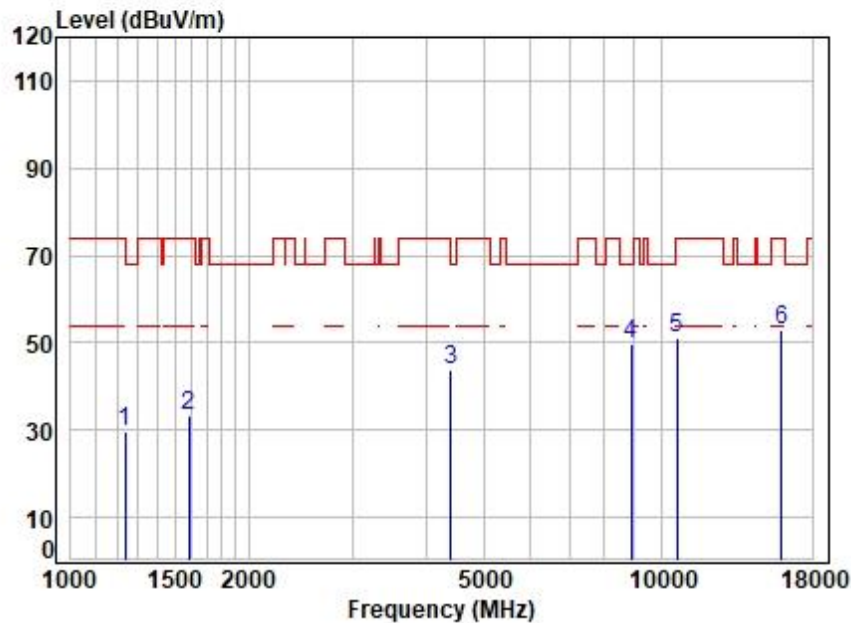


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5300 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1242.068	2.87	24.48	37.58	40.18	29.95	68.20	-38.25	peak
2	1663.137	3.45	26.73	36.48	38.99	32.69	74.00	-41.31	peak
3	4304.400	6.59	33.60	34.54	38.28	43.93	74.00	-30.07	peak
4	8891.725	10.04	36.70	35.56	38.78	49.96	68.20	-18.24	peak
5	10600.000	10.98	37.60	35.84	38.01	50.75	68.20	-17.45	peak
6	15900.000	14.04	41.50	37.61	34.83	52.76	74.00	-21.24	peak



Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High

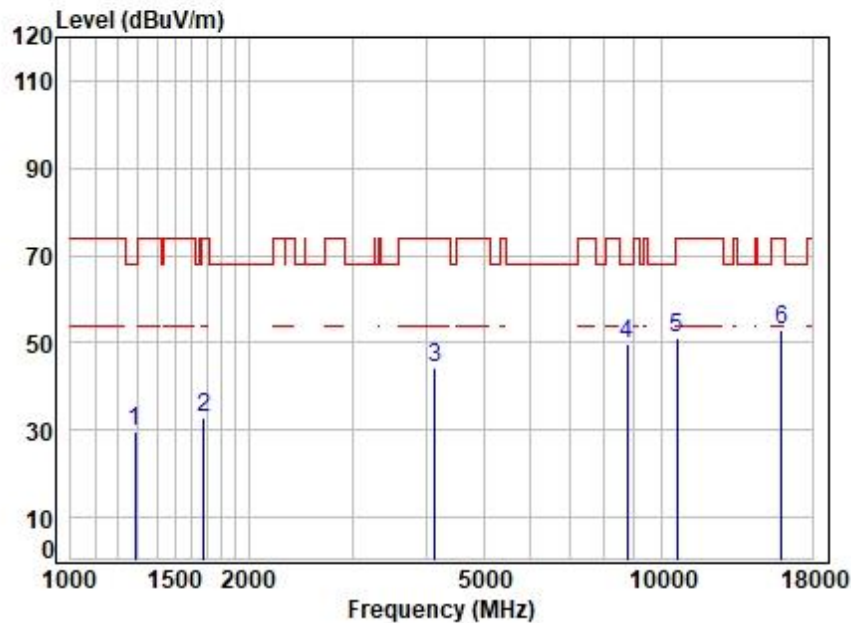


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5320 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1238.483	2.86	24.48	37.59	39.94	29.69	74.00	-44.31	peak
2	1587.975	3.35	26.36	36.66	40.12	33.17	74.00	-40.83	peak
3	4405.090	6.68	33.50	34.61	38.43	44.00	68.20	-24.20	peak
4	8891.725	10.04	36.70	35.56	38.65	49.83	68.20	-18.37	peak
5	10640.000	11.01	37.60	35.85	38.24	51.00	74.00	-23.00	peak
6	15960.000	14.11	41.56	37.63	34.98	53.02	74.00	-20.98	peak



Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High

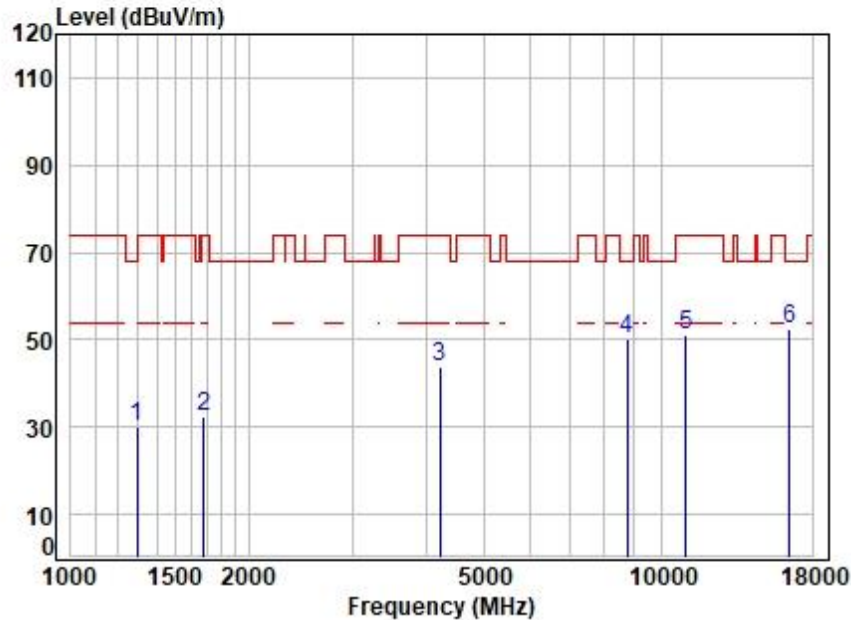


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5320 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1285.904	2.94	24.64	37.45	39.46	29.59	68.20	-38.61	peak
2	1677.621	3.46	26.76	36.45	39.19	32.96	74.00	-41.04	peak
3	4133.699	6.42	33.07	34.43	39.25	44.31	74.00	-29.69	peak
4	8764.146	9.92	36.70	35.63	38.83	49.82	68.20	-18.38	peak
5	10640.000	11.01	37.60	35.85	38.15	50.91	74.00	-23.09	peak
6	15960.000	14.11	41.56	37.63	35.09	53.13	74.00	-20.87	peak



Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5500 TX RSE
Note : 5G WIFI 11A

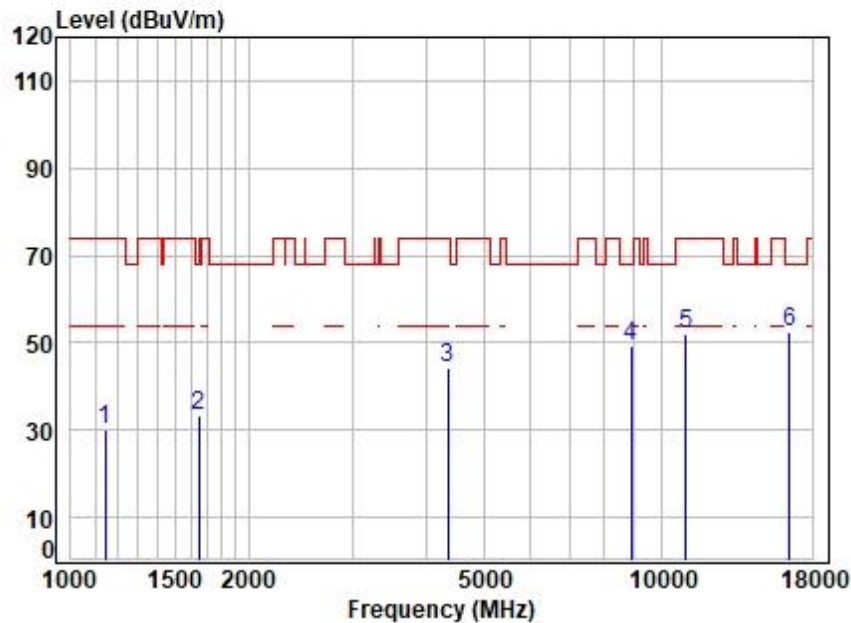
		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1297.103	2.95	24.69	37.42	39.97	30.19	68.20	-38.01	peak
2	1677.621	3.46	26.76	36.45	38.70	32.47	74.00	-41.53	peak
3	4218.186	6.50	33.47	34.48	38.09	43.58	74.00	-30.42	peak
4	8764.146	9.92	36.70	35.63	39.26	50.25	68.20	-17.95	peak
5	11000.000	11.26	37.70	36.00	37.94	50.90	74.00	-23.10	peak
6	16500.000	14.16	42.40	37.56	33.55	52.55	68.20	-15.65	peak



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Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

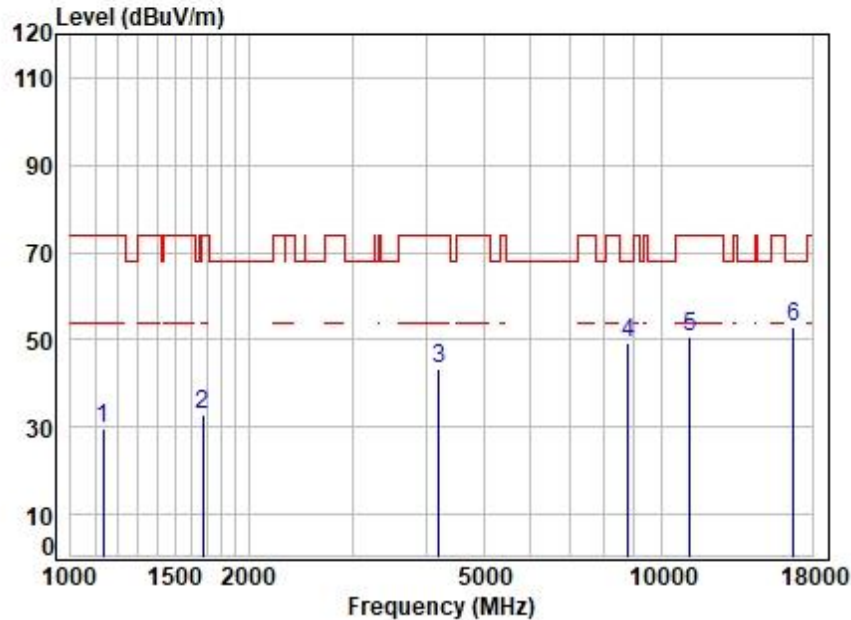


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5500 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1142.201	2.70	24.17	37.90	40.98	29.95	74.00	-44.05	peak
2	1648.778	3.43	26.70	36.52	39.53	33.14	68.20	-35.06	peak
3	4354.454	6.63	33.59	34.58	38.45	44.09	74.00	-29.91	peak
4	8891.725	10.04	36.70	35.56	38.11	49.29	68.20	-18.91	peak
5	11000.000	11.26	37.70	36.00	39.12	52.08	74.00	-21.92	peak
6	16500.000	14.16	42.40	37.56	33.29	52.29	68.20	-15.91	peak



Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

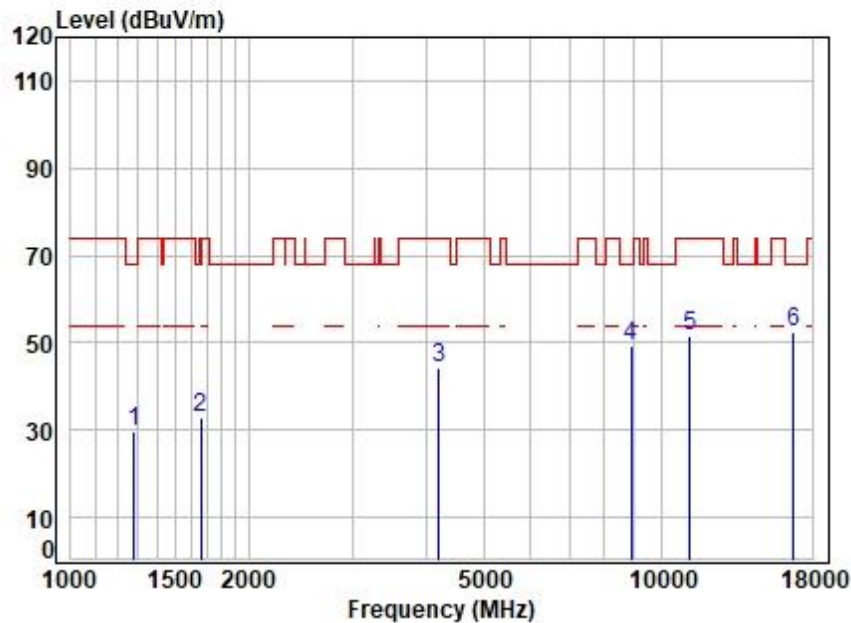


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5580 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1135.617	2.69	24.14	37.92	40.69	29.60	74.00	-44.40	peak
2	1672.779	3.46	26.75	36.46	38.91	32.66	74.00	-41.34	peak
3	4193.872	6.48	33.36	34.47	38.19	43.56	74.00	-30.44	peak
4	8789.516	9.95	36.70	35.62	38.31	49.34	68.20	-18.86	peak
5	11160.000	11.36	37.80	36.10	37.57	50.63	74.00	-23.37	peak
6	16740.000	14.16	42.80	37.52	33.43	52.87	68.20	-15.33	peak



Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5580 TX RSE
Note : 5G WIFI 11A

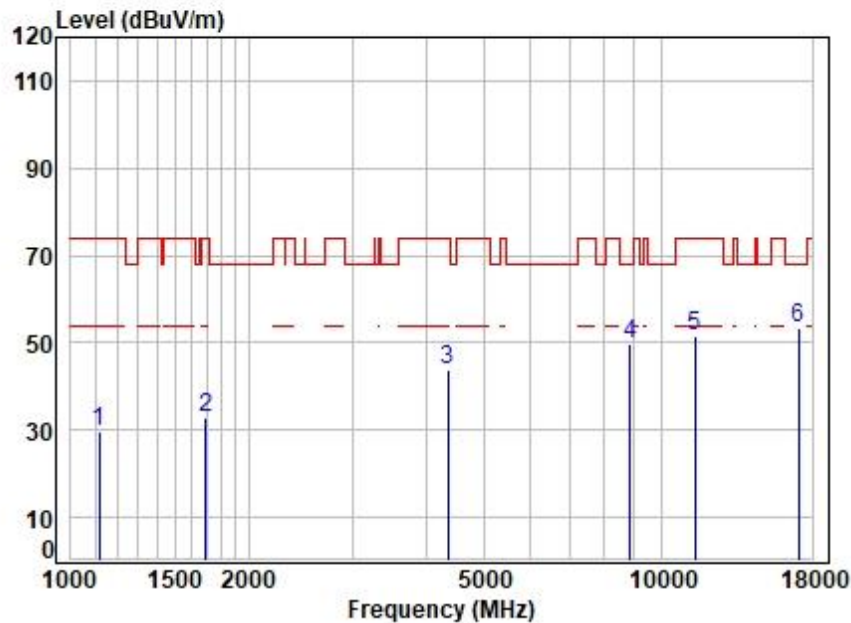
		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1282.193	2.93	24.63	37.46	39.68	29.78	68.20	-38.42	peak
2	1663.137	3.45	26.73	36.48	39.22	32.92	74.00	-41.08	peak
3	4206.011	6.49	33.42	34.48	38.64	44.07	74.00	-29.93	peak
4	8891.725	10.04	36.70	35.56	38.27	49.45	68.20	-18.75	peak
5	11160.000	11.36	37.80	36.10	38.60	51.66	74.00	-22.34	peak
6	16740.000	14.16	42.80	37.52	32.98	52.42	68.20	-15.78	peak



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Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

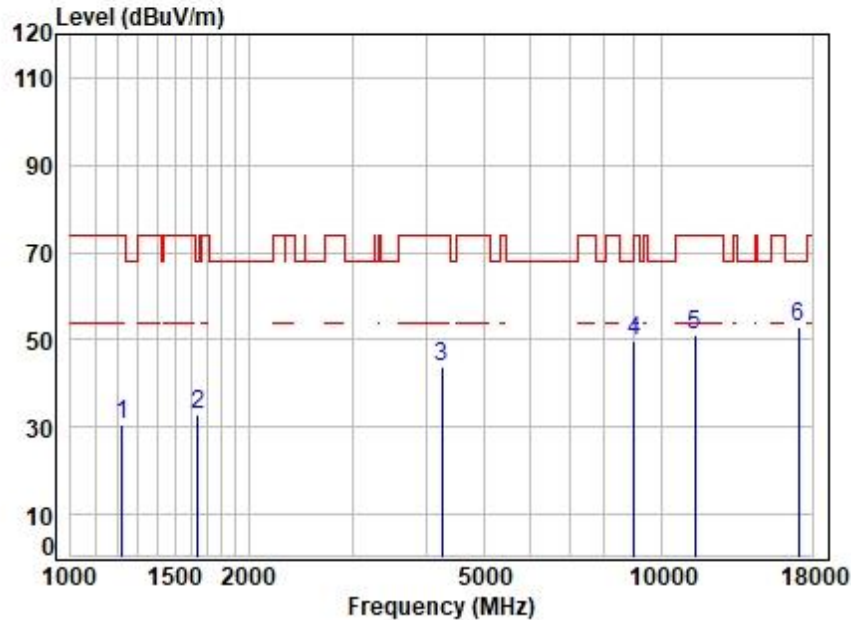


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5700 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1116.093	2.66	24.07	37.99	40.94	29.68	74.00	-44.32	peak
2	1692.231	3.48	26.78	36.42	38.96	32.80	74.00	-41.20	peak
3	4354.454	6.63	33.59	34.58	38.14	43.78	74.00	-30.22	peak
4	8866.062	10.01	36.70	35.58	38.62	49.75	68.20	-18.45	peak
5	11400.000	11.52	37.90	36.24	38.15	51.33	74.00	-22.67	peak
6	17100.000	14.17	43.10	37.47	33.38	53.18	68.20	-15.02	peak



Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

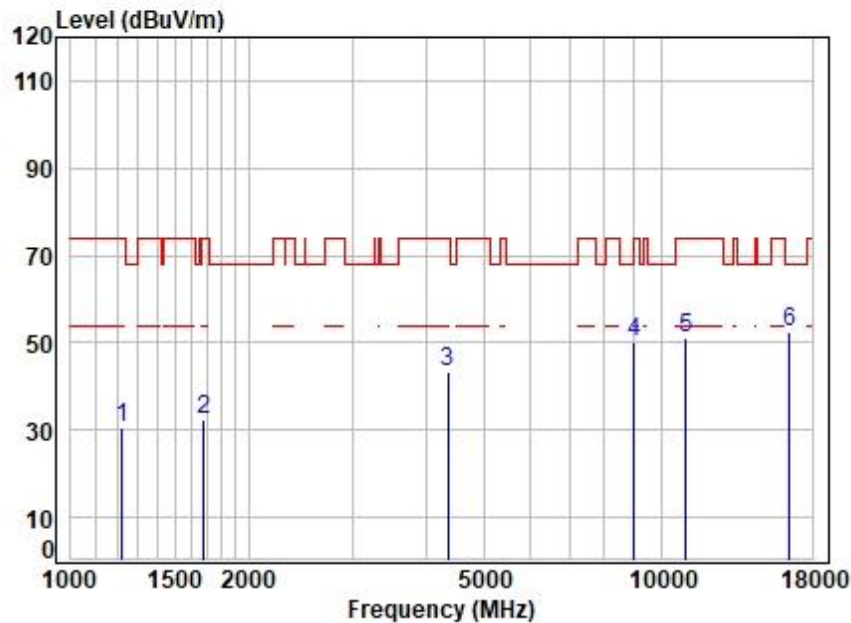


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5700 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1220.714	2.83	24.44	37.65	40.74	30.36	74.00	-43.64	peak
2	1644.019	3.42	26.68	36.53	39.45	33.02	68.20	-35.18	peak
3	4254.921	6.54	33.60	34.51	38.30	43.93	74.00	-30.07	peak
4	8995.123	10.13	36.70	35.50	38.29	49.62	68.20	-18.58	peak
5	11400.000	11.52	37.90	36.24	38.00	51.18	74.00	-22.82	peak
6	17100.000	14.17	43.10	37.47	33.16	52.96	68.20	-15.24	peak



Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

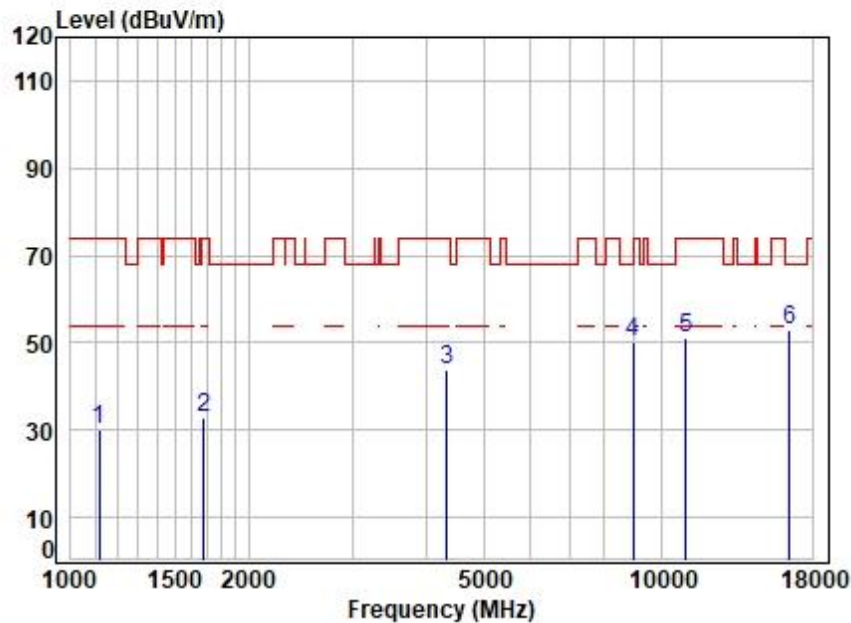


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5500 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1224.247	2.84	24.45	37.64	40.78	30.43	74.00	-43.57	peak
2	1682.477	3.47	26.77	36.44	38.65	32.45	74.00	-41.55	peak
3	4354.454	6.63	33.59	34.58	37.80	43.44	74.00	-30.56	peak
4	8995.123	10.13	36.70	35.50	38.82	50.15	68.20	-18.05	peak
5	11000.000	11.26	37.70	36.00	38.07	51.03	74.00	-22.97	peak
6	16500.000	14.16	42.40	37.56	33.66	52.66	68.20	-15.54	peak



Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

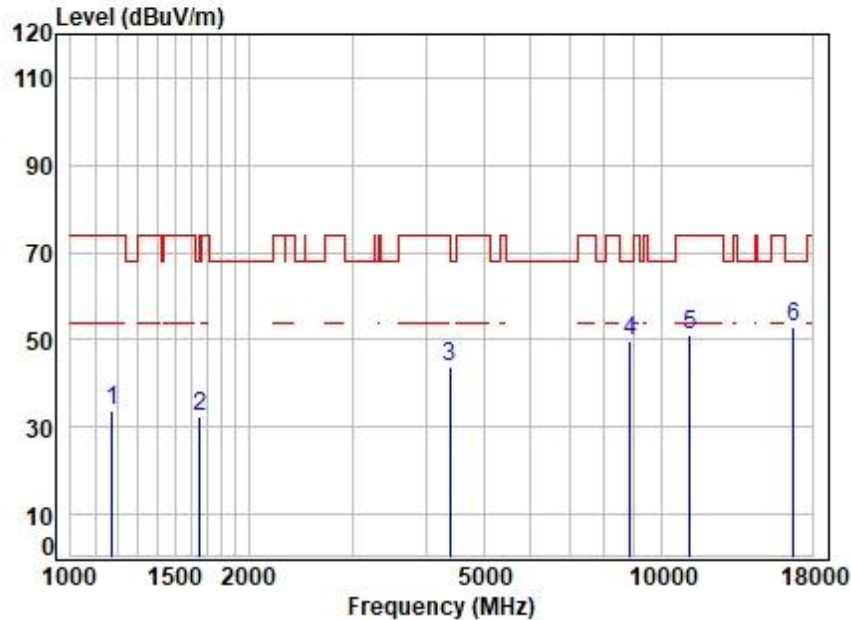


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5500 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
Freq		Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz		dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1116.093	2.66	24.07	37.99	41.19	29.93	74.00	-44.07	peak
2	1677.621	3.46	26.76	36.45	39.06	32.83	74.00	-41.17	peak
3	4329.354	6.61	33.60	34.56	38.08	43.73	74.00	-30.27	peak
4	8969.161	10.10	36.70	35.52	38.70	49.98	68.20	-18.22	peak
5	11000.000	11.26	37.70	36.00	38.18	51.14	74.00	-22.86	peak
6	16500.000	14.16	42.40	37.56	33.98	52.98	68.20	-15.22	peak



Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

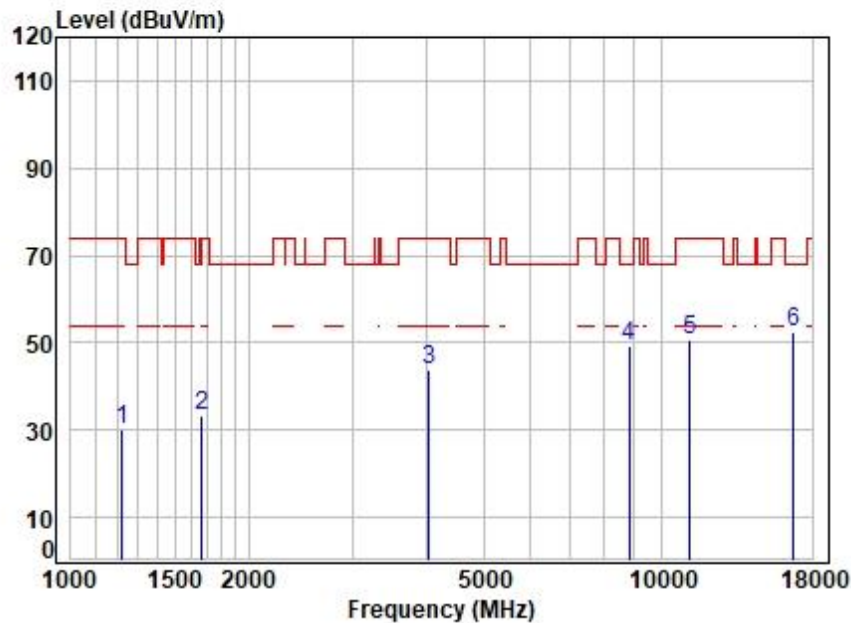


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5580 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1175.697	2.76	24.30	37.79	44.30	33.57	74.00	-40.43	peak
2	1653.550	3.43	26.71	36.51	38.75	32.38	68.20	-35.82	peak
3	4392.376	6.67	33.52	34.60	38.26	43.85	74.00	-30.15	peak
4	8866.062	10.01	36.70	35.58	38.43	49.56	68.20	-18.64	peak
5	11160.000	11.36	37.80	36.10	38.20	51.26	74.00	-22.74	peak
6	16740.000	14.16	42.80	37.52	33.27	52.71	68.20	-15.49	peak



Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

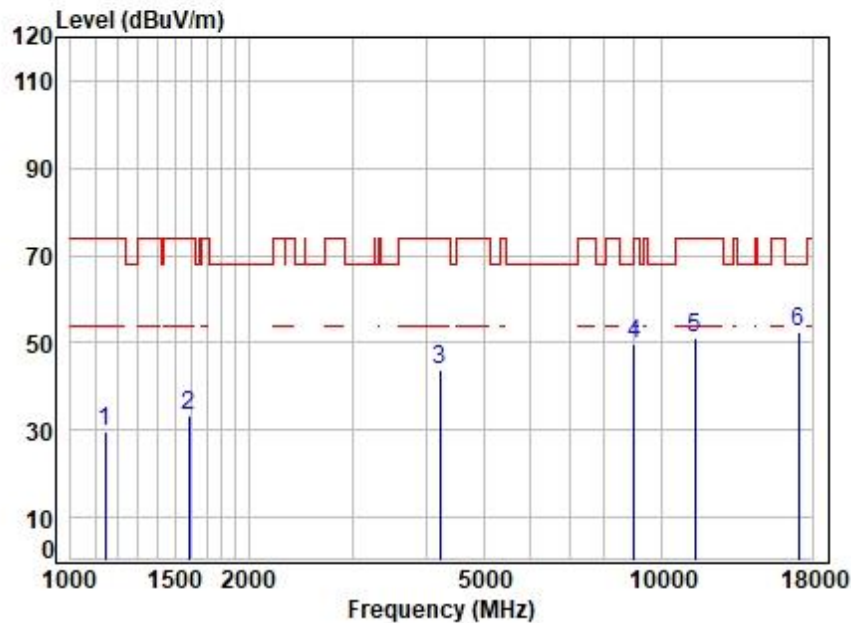


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5580 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1224.247	2.84	24.45	37.64	40.54	30.19	74.00	-43.81	peak
2	1667.951	3.45	26.74	36.47	39.46	33.18	74.00	-40.82	peak
3	4039.212	6.32	32.86	34.36	38.90	43.72	74.00	-30.28	peak
4	8814.957	9.97	36.70	35.60	38.25	49.32	68.20	-18.88	peak
5	11160.000	11.36	37.80	36.10	37.79	50.85	74.00	-23.15	peak
6	16740.000	14.16	42.80	37.52	33.24	52.68	68.20	-15.52	peak



Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High

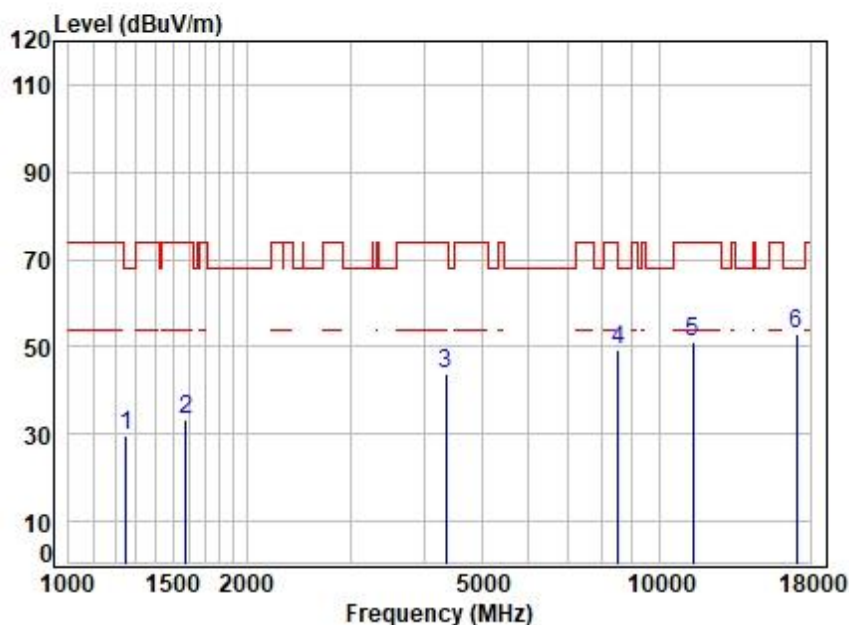


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5700 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1142.201	2.70	24.17	37.90	40.65	29.62	74.00	-44.38	peak
2	1583.392	3.35	26.30	36.67	40.14	33.12	74.00	-40.88	peak
3	4218.186	6.50	33.47	34.48	38.45	43.94	74.00	-30.06	peak
4	8995.123	10.13	36.70	35.50	38.31	49.64	68.20	-18.56	peak
5	11400.000	11.52	37.90	36.24	37.85	51.03	74.00	-22.97	peak
6	17100.000	14.17	43.10	37.47	32.53	52.33	68.20	-15.87	peak



Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5700 TX RSE
Note : 5G WIFI 11N20

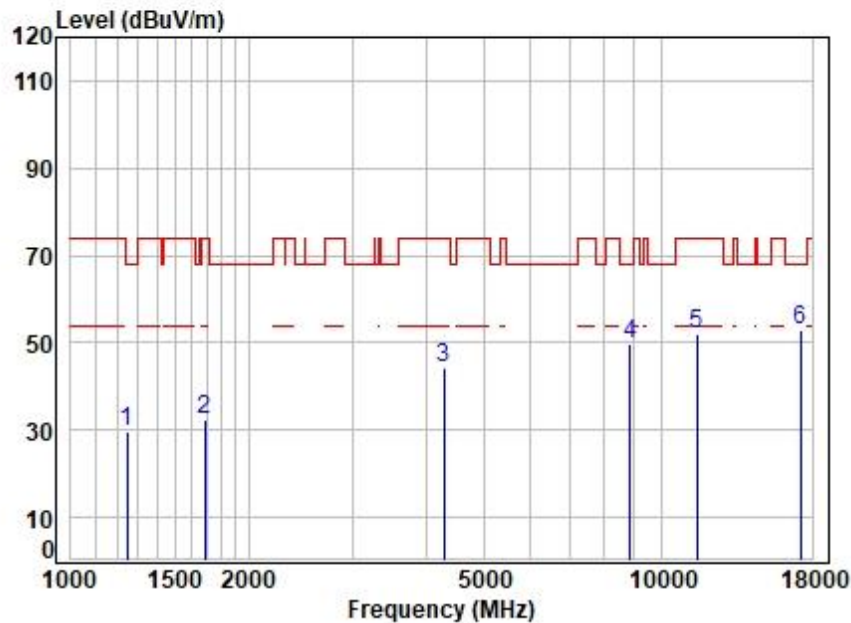
		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1249.269	2.88	24.50	37.56	39.84	29.66	68.20	-38.54	peak
2	1578.822	3.34	26.25	36.68	40.23	33.14	74.00	-40.86	peak
3	4354.454	6.63	33.59	34.58	38.38	44.02	74.00	-29.98	peak
4	8514.456	9.70	36.50	35.78	38.88	49.30	68.20	-18.90	peak
5	11400.000	11.52	37.90	36.24	37.94	51.12	74.00	-22.88	peak
6	17100.000	14.17	43.10	37.47	32.92	52.72	68.20	-15.48	peak



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Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

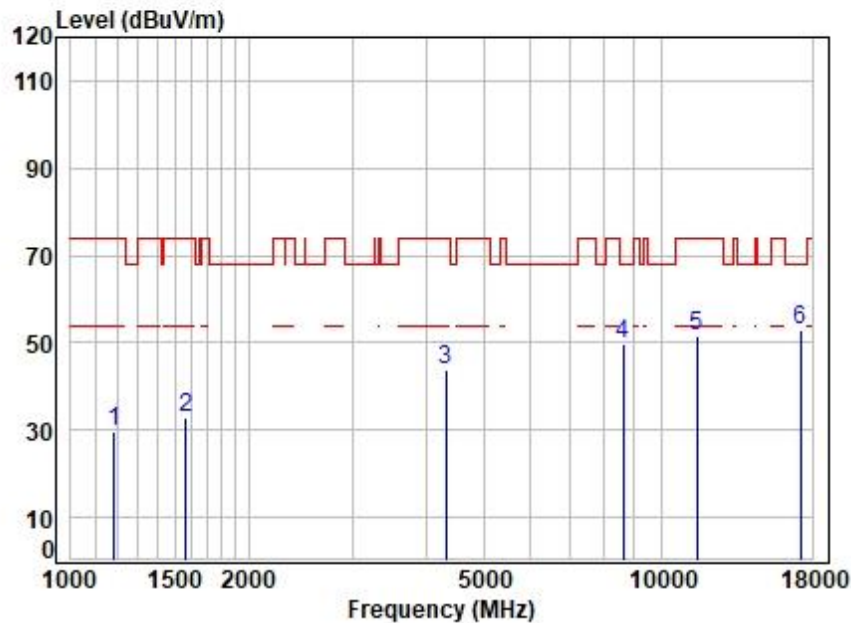


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5745 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1245.663	2.87	24.49	37.57	39.86	29.65	68.20	-38.55	peak
2	1687.347	3.47	26.77	36.43	38.75	32.56	74.00	-41.44	peak
3	4291.977	6.57	33.60	34.54	38.60	44.23	74.00	-29.77	peak
4	8840.473	9.99	36.70	35.59	38.45	49.55	68.20	-18.65	peak
5	11490.000	11.58	37.99	36.29	38.65	51.93	74.00	-22.07	peak
6	17235.000	14.18	43.34	37.46	32.82	52.88	68.20	-15.32	peak



Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

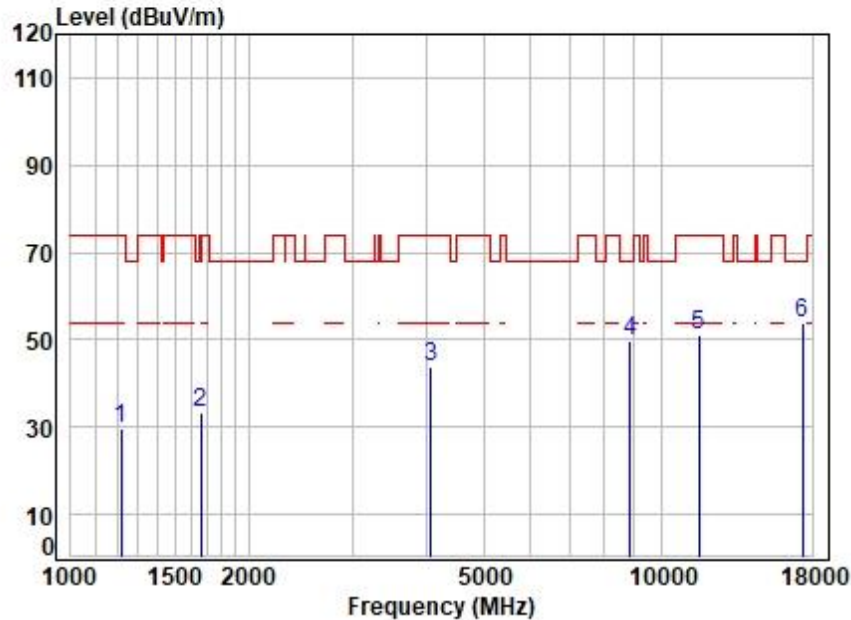


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5745 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1185.936	2.78	24.34	37.76	40.50	29.86	74.00	-44.14	peak
2	1569.721	3.33	26.14	36.70	39.98	32.75	74.00	-41.25	peak
3	4316.859	6.60	33.60	34.55	38.03	43.68	74.00	-30.32	peak
4	8613.468	9.79	36.60	35.72	38.89	49.56	68.20	-18.64	peak
5	11490.000	11.58	37.99	36.29	38.42	51.70	74.00	-22.30	peak
6	17235.000	14.18	43.34	37.46	33.05	53.11	68.20	-15.09	peak



Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5785 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1217.190	2.83	24.43	37.66	40.14	29.74	74.00	-44.26	peak
2	1658.337	3.44	26.72	36.50	39.46	33.12	68.20	-35.08	peak
3	4074.388	6.36	32.95	34.38	38.77	43.70	74.00	-30.30	peak
4	8840.473	9.99	36.70	35.59	38.56	49.66	68.20	-18.54	peak
5	11570.000	11.63	38.00	36.34	37.89	51.18	74.00	-22.82	peak
6	17355.000	14.19	43.46	37.45	33.44	53.64	68.20	-14.56	peak



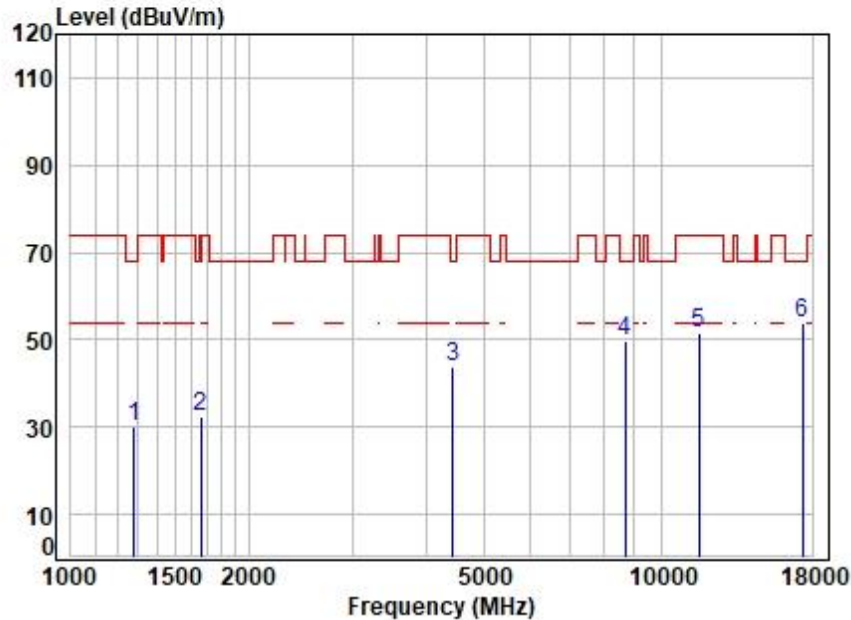
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/0 Aug01,2022

Report No.: SZCR230300061103

Page: 78 of 216

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5785 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1282.193	2.93	24.63	37.46	39.80	29.90	68.20	-38.30	peak
2	1663.137	3.45	26.73	36.48	38.71	32.41	74.00	-41.59	peak
3	4443.453	6.72	33.50	34.64	38.33	43.91	68.20	-24.29	peak
4	8688.480	9.86	36.68	35.68	38.65	49.51	68.20	-18.69	peak
5	11570.000	11.63	38.00	36.34	38.17	51.46	74.00	-22.54	peak
6	17355.000	14.19	43.46	37.45	33.44	53.64	68.20	-14.56	peak

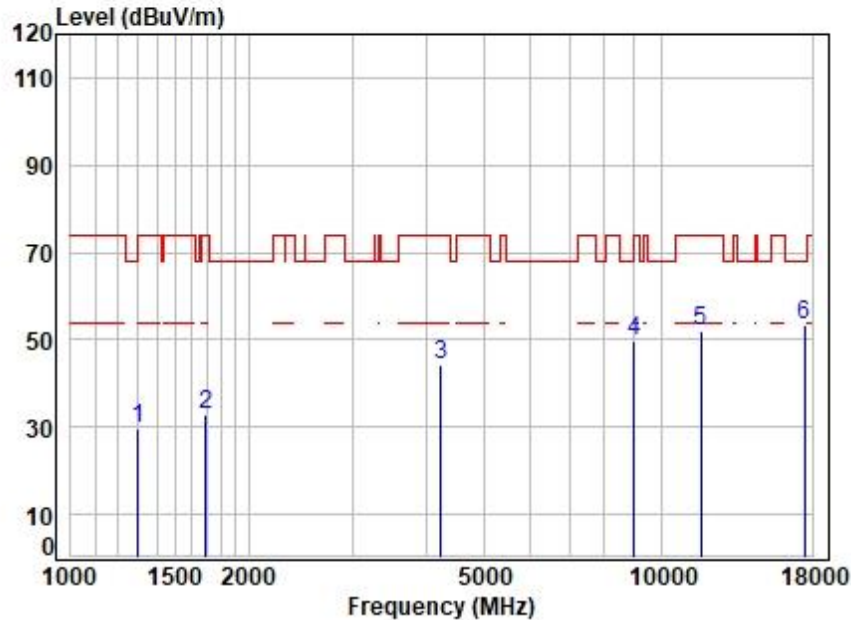


SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch EMC Laboratory

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Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

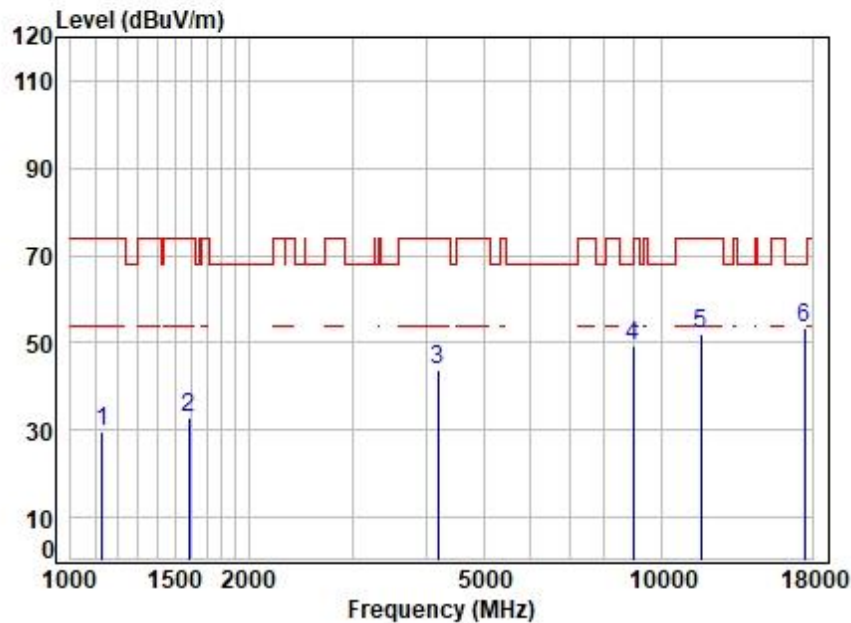


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5825 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1300.858	2.96	24.70	37.41	39.24	29.49	74.00	-44.51	peak
2	1692.231	3.48	26.78	36.42	39.23	33.07	74.00	-40.93	peak
3	4230.396	6.51	33.52	34.49	38.75	44.29	74.00	-29.71	peak
4	8995.123	10.13	36.70	35.50	38.35	49.68	68.20	-18.52	peak
5	11650.000	11.68	38.00	36.38	38.67	51.97	74.00	-22.03	peak
6	17475.000	14.20	43.58	37.44	32.98	53.32	68.20	-14.88	peak



Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

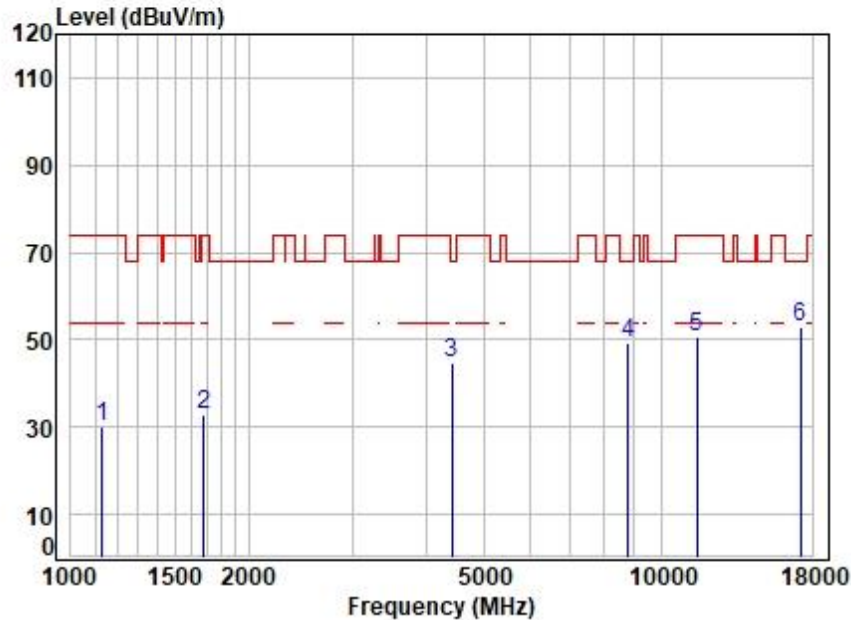


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5825 TX RSE
Note : 5G WIFI 11A

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1132.340	2.69	24.13	37.93	40.58	29.47	74.00	-44.53	peak
2	1587.975	3.35	26.36	36.66	39.90	32.95	74.00	-41.05	peak
3	4181.768	6.47	33.29	34.46	38.35	43.65	74.00	-30.35	peak
4	8969.161	10.10	36.70	35.52	38.22	49.50	68.20	-18.70	peak
5	11650.000	11.68	38.00	36.38	38.53	51.83	74.00	-22.17	peak
6	17475.000	14.20	43.58	37.44	33.15	53.49	68.20	-14.71	peak



Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

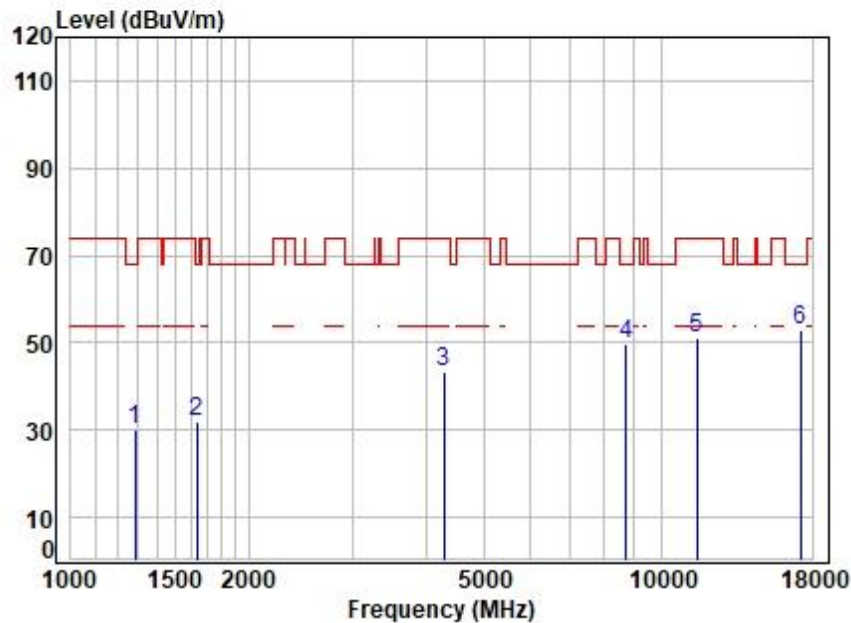


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5745 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1132.340	2.69	24.13	37.93	41.30	30.19	74.00	-43.81	peak
2	1677.621	3.46	26.76	36.45	39.05	32.82	74.00	-41.18	peak
3	4417.841	6.69	33.50	34.62	39.05	44.62	68.20	-23.58	peak
4	8789.516	9.95	36.70	35.62	38.44	49.47	68.20	-18.73	peak
5	11490.000	11.58	37.99	36.29	37.49	50.77	74.00	-23.23	peak
6	17235.000	14.18	43.34	37.46	32.88	52.94	68.20	-15.26	peak



Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

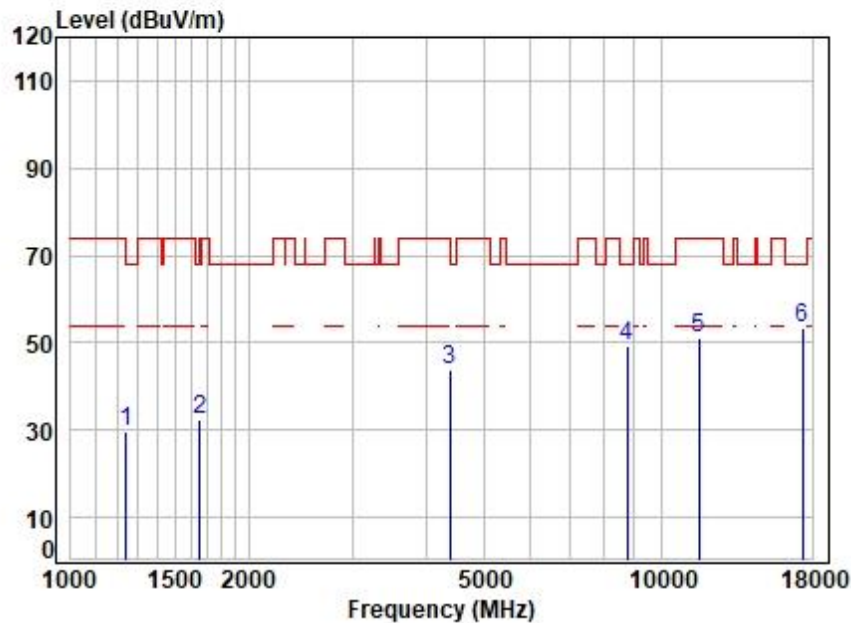


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5745 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1285.904	2.94	24.64	37.45	39.89	30.02	68.20	-38.18	peak
2	1634.543	3.41	26.64	36.55	38.52	32.02	68.20	-36.18	peak
3	4291.977	6.57	33.60	34.54	37.84	43.47	74.00	-30.53	peak
4	8713.630	9.88	36.70	35.66	38.81	49.73	68.20	-18.47	peak
5	11490.000	11.58	37.99	36.29	37.62	50.90	74.00	-23.10	peak
6	17235.000	14.18	43.34	37.46	32.89	52.95	68.20	-15.25	peak



Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

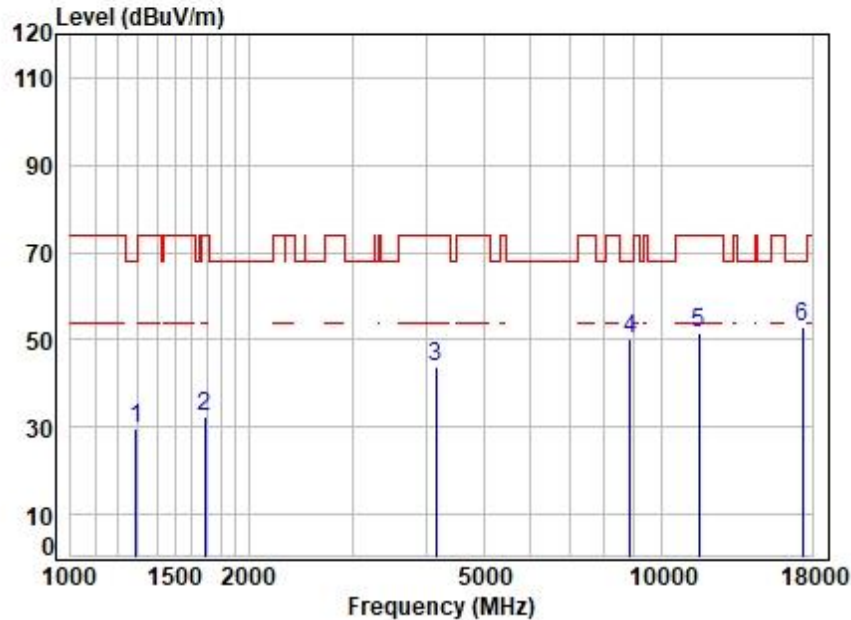


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5785 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1242.068	2.87	24.48	37.58	39.94	29.71	68.20	-38.49	peak
2	1653.550	3.43	26.71	36.51	38.79	32.42	68.20	-35.78	peak
3	4392.376	6.67	33.52	34.60	38.22	43.81	74.00	-30.19	peak
4	8764.146	9.92	36.70	35.63	38.34	49.33	68.20	-18.87	peak
5	11570.000	11.63	38.00	36.34	37.86	51.15	74.00	-22.85	peak
6	17355.000	14.19	43.46	37.45	33.12	53.32	68.20	-14.88	peak



Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

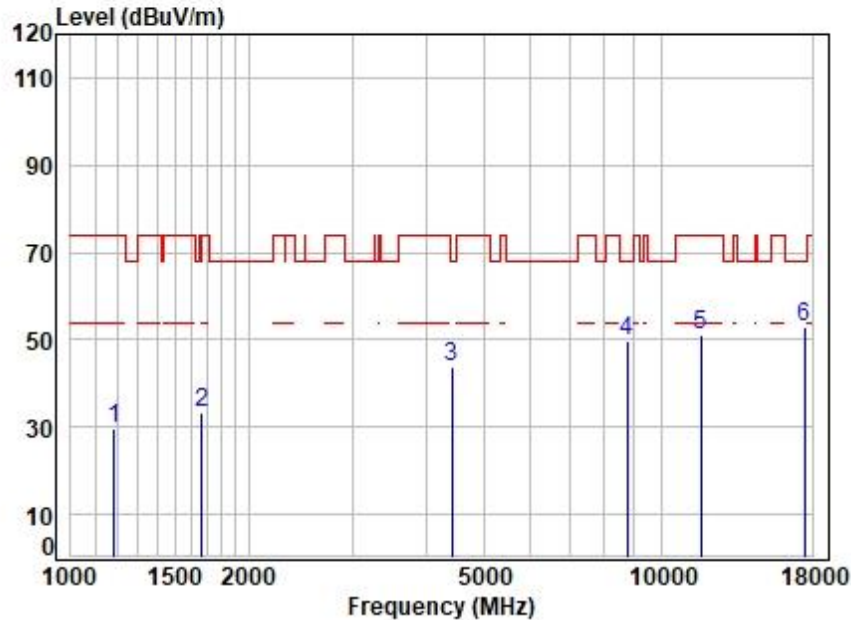


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5785 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1289.627	2.94	24.66	37.44	39.37	29.53	68.20	-38.67	peak
2	1687.347	3.47	26.77	36.43	38.57	32.38	74.00	-41.62	peak
3	4157.664	6.44	33.15	34.44	38.77	43.92	74.00	-30.08	peak
4	8866.062	10.01	36.70	35.58	39.27	50.40	68.20	-17.80	peak
5	11570.000	11.63	38.00	36.34	38.29	51.58	74.00	-22.42	peak
6	17355.000	14.19	43.46	37.45	32.96	53.16	68.20	-15.04	peak



Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5825 TX RSE
Note : 5G WIFI 11N20

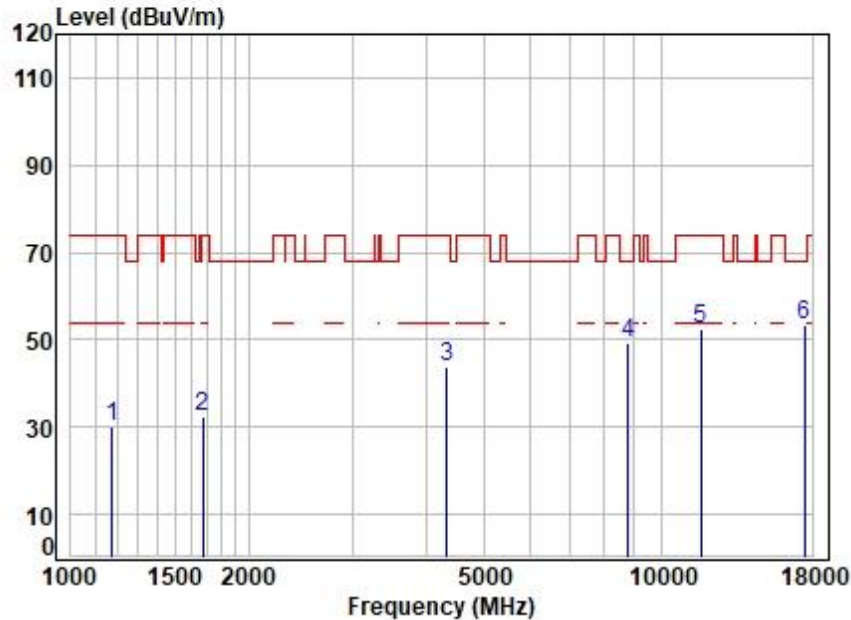
		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1182.513	2.77	24.33	37.77	40.54	29.87	74.00	-44.13	peak
2	1667.951	3.45	26.74	36.47	39.48	33.20	74.00	-40.80	peak
3	4417.841	6.69	33.50	34.62	38.03	43.60	68.20	-24.60	peak
4	8738.852	9.90	36.70	35.65	38.77	49.72	68.20	-18.48	peak
5	11650.000	11.68	38.00	36.38	37.99	51.29	74.00	-22.71	peak
6	17475.000	14.20	43.58	37.44	32.70	53.04	68.20	-15.16	peak



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Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5825 TX RSE
Note : 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1175.697	2.76	24.30	37.79	40.97	30.24	74.00	-43.76	peak
2	1672.779	3.46	26.75	36.46	38.58	32.33	74.00	-41.67	peak
3	4329.354	6.61	33.60	34.56	38.04	43.69	74.00	-30.31	peak
4	8789.516	9.95	36.70	35.62	38.37	49.40	68.20	-18.80	peak
5	11650.000	11.68	38.00	36.38	39.13	52.43	74.00	-21.57	peak
6	17475.000	14.20	43.58	37.44	33.11	53.45	68.20	-14.75	peak



7.10 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
 Test Method: KDB 789033 D02 II G
 Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.10.1 E.U.T. Operation

Operating Environment:

Temperature: 23.0 °C

Humidity: 56.3 % RH

Atmospheric Pressure: 1015 mbar



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SZEMC-TRF-01 Rev. A/0 Aug01,2022

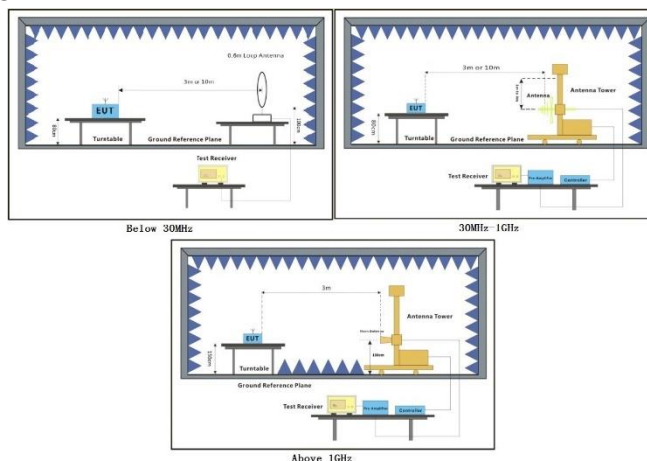
Report No.: SZCR230300061103

Page: 88 of 216

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



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7.10.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

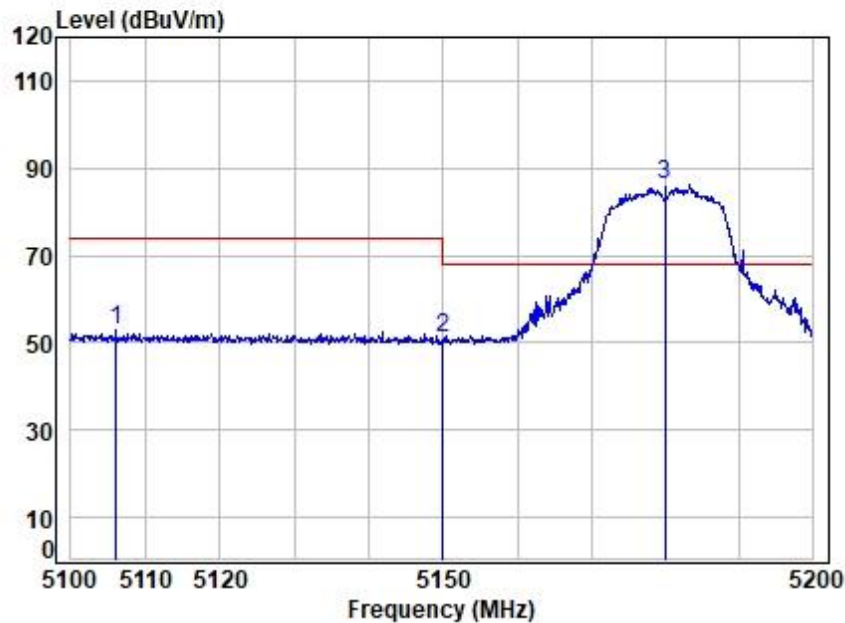
Remark:

1)Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2 For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the widest bandwidth which can be covered the same channel (center frequency) on modes with narrower bandwidth that have the same or lower output power for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.



Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

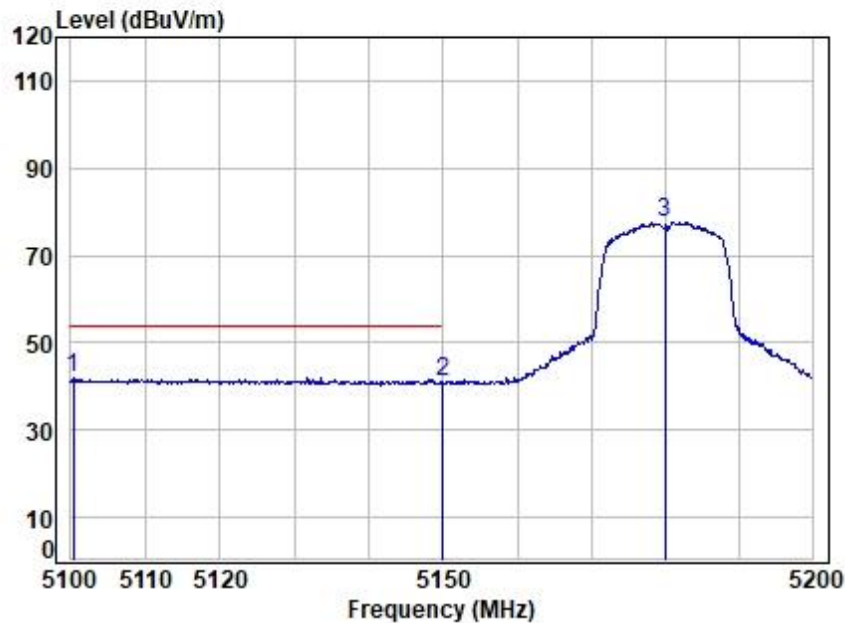


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5106.044	7.32	34.09	34.99	46.39	52.81	74.00	-21.19 peak
2	5149.980	7.36	34.00	34.99	44.86	51.23	74.00	-22.77 peak
3	5180.000	7.39	34.00	34.99	79.65	86.05	68.20	17.85 peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

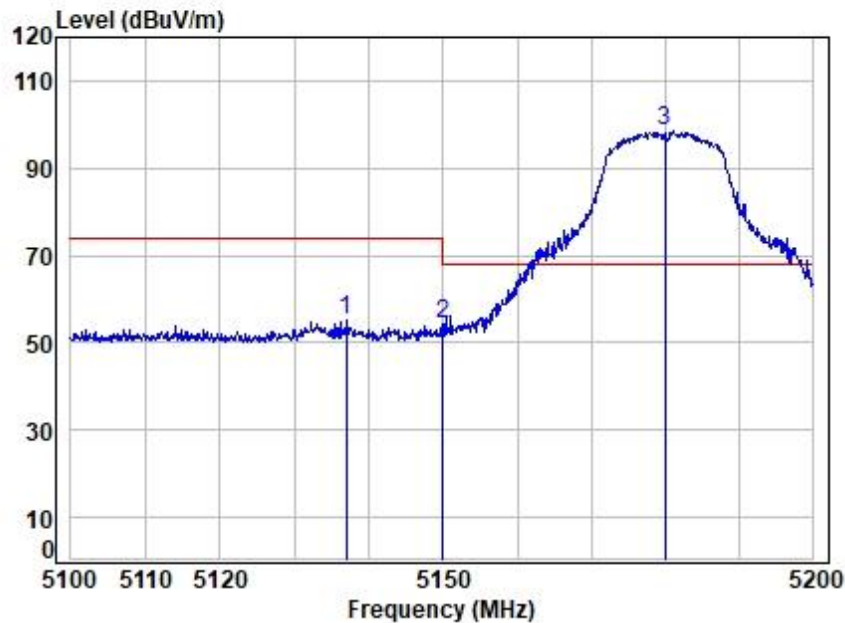


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5100.297	7.31	34.10	34.99	35.40	41.82	54.00	-12.18 Average
2	5149.980	7.36	34.00	34.99	34.67	41.04	54.00	-12.96 Average
3	5180.000	7.39	34.00	34.99	71.19	77.59	-----	----- Average



Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

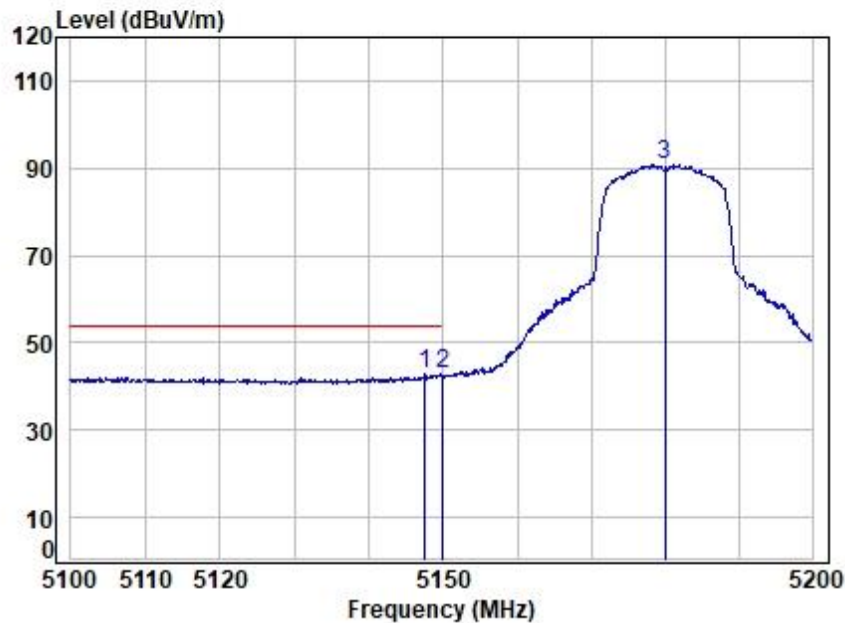


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5136.973	7.35	34.03	34.99	48.85	55.24	74.00	-18.76 Peak
2	5149.980	7.36	34.00	34.99	47.87	54.24	74.00	-19.76 Peak
3	5180.000	7.39	34.00	34.99	92.06	98.46	68.20	30.26 Peak



Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

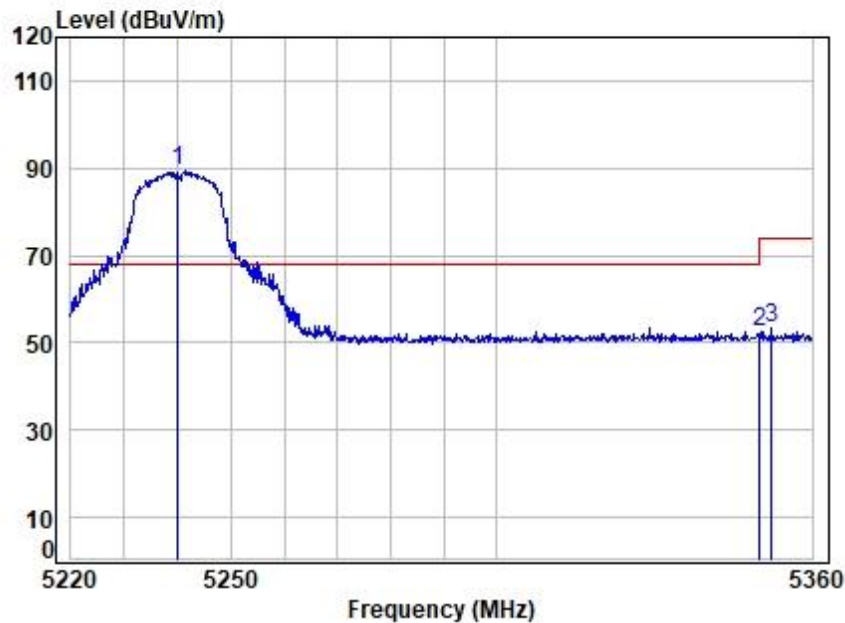


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5147.558	7.36	34.00	34.99	36.37	42.74	54.00	-11.26 Average
2	5149.980	7.36	34.00	34.99	36.60	42.97	54.00	-11.03 Average
3	5180.000	7.39	34.00	34.99	84.31	90.71	-----	----- Average



Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

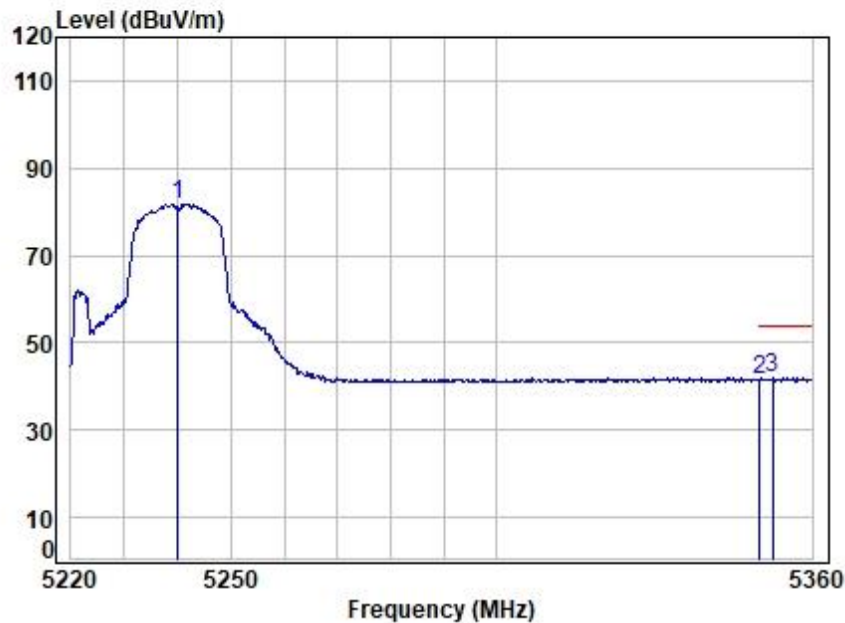


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5240 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5240.000	7.45	34.00	35.00	82.76	89.21	68.20	21.01 peak
2	5350.020	7.56	34.30	35.00	45.69	52.55	74.00	-21.45 peak
3	5352.203	7.56	34.31	35.00	46.54	53.41	74.00	-20.59 peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

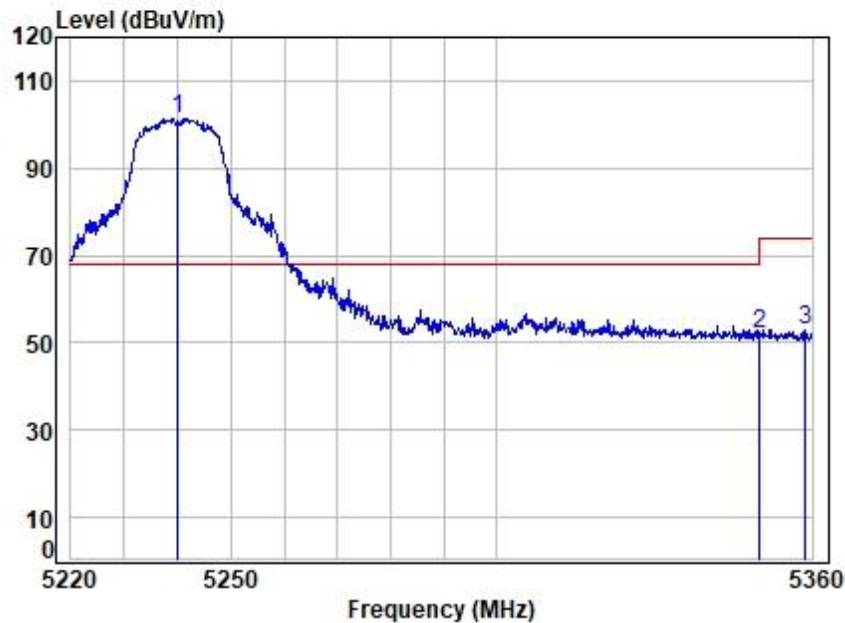


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5240 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5240.000	7.45	34.00	35.00	75.31	81.76	-----	Average
2	5350.020	7.56	34.30	35.00	34.76	41.62	54.00	-12.38 Average
3	5352.487	7.56	34.31	35.00	35.14	42.01	54.00	-11.99 Average



Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5240 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
MHz		dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 . 5240.000		7.45	34.00	35.00	94.98	101.43	68.20	33.23 Peak
2 5350.020		7.56	34.30	35.00	45.23	52.09	74.00	-21.91 Peak
3 5358.724		7.57	34.34	35.00	46.11	53.02	74.00	-20.98 Peak



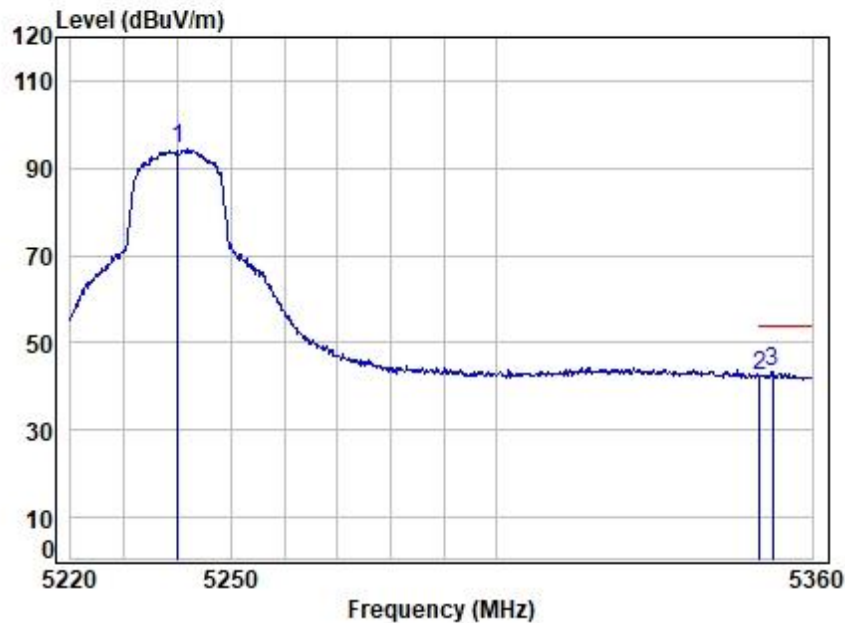
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SZEMC-TRF-01 Rev. A/0 Aug01,2022

Report No.: SZCR230300061103

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Test Mode: 02; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5240 Band edge
: 5G WIFI 11A

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5240.000	7.45	34.00	35.00	87.80	94.25	-----	Average
2	5350.020	7.56	34.30	35.00	35.45	42.31	54.00	-11.69 Average
3	5352.487	7.56	34.31	35.00	36.41	43.28	54.00	-10.72 Average

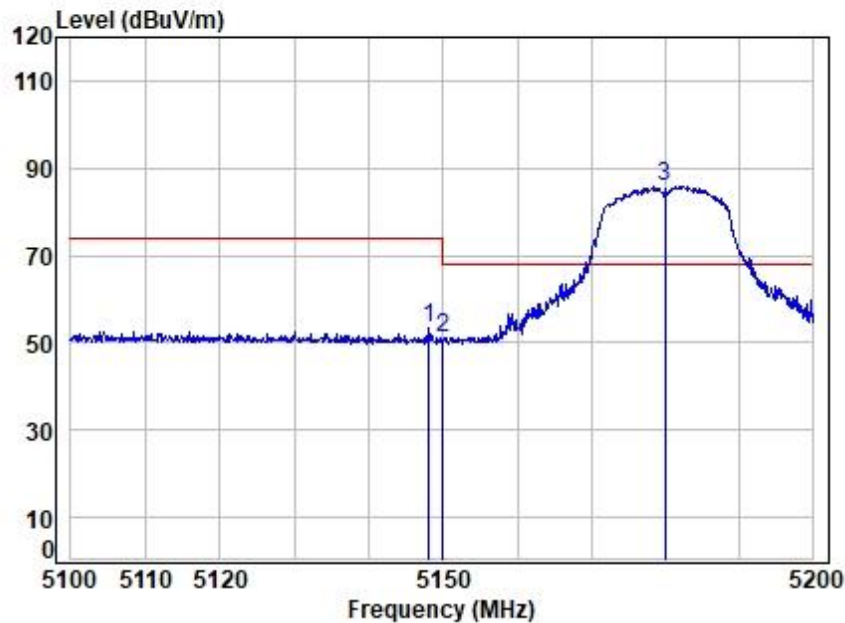


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Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

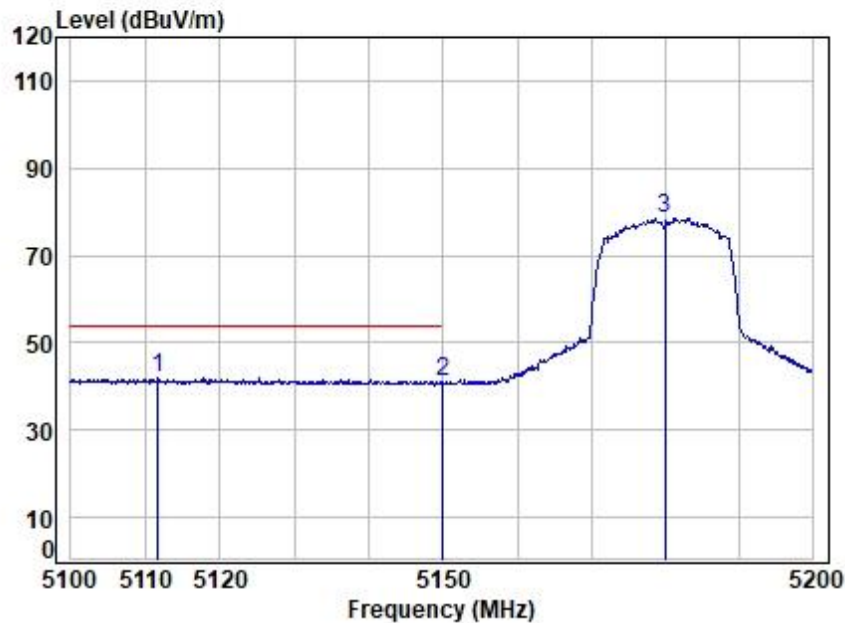


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11N20

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Level	Line	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5148.058	7.36	34.00	34.99	47.06	53.43	74.00	-20.57 peak
2	5149.980	7.36	34.00	34.99	44.73	51.10	74.00	-22.90 peak
3	5180.000	7.39	34.00	34.99	79.60	86.00	68.20	17.80 peak



Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

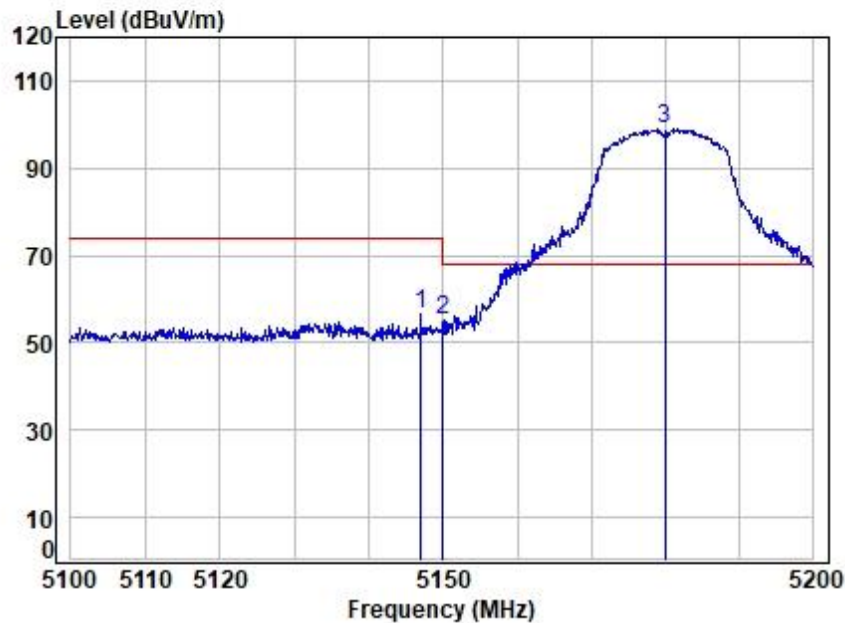


Site : chamber
Condition: 3m HORIZONTAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5111.699	7.33	34.08	34.99	35.47	41.89	54.00	-12.11	Average
2	5149.980	7.36	34.00	34.99	34.62	40.99	54.00	-13.01	Average
3	5180.000	7.39	34.00	34.99	72.12	78.52	-----	-----	Average



Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

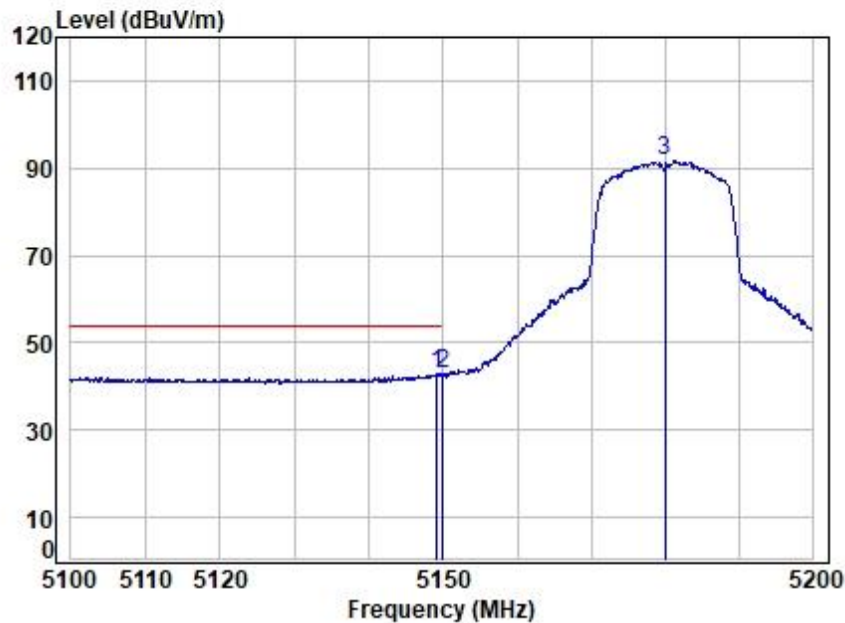


Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11N20

		Cable	Ant	Preamp	Read		Limit	Over	
Freq		Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5146.958	7.36	34.01	34.99	50.26	56.64	74.00	-17.36	Peak
2	5149.980	7.36	34.00	34.99	48.70	55.07	74.00	-18.93	Peak
3	5180.000	7.39	34.00	34.99	92.57	98.97	68.20	30.77	Peak



Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 00611AT/00612AT
Mode : 5180 Band edge
: 5G WIFI 11N20

		Cable	Ant	Preamp	Read	Limit	Over	
Freq		Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5149.157	7.36	34.00	34.99	36.51	42.88	54.00	-11.12 Average
2	5149.980	7.36	34.00	34.99	36.65	43.02	54.00	-10.98 Average
3	5180.000	7.39	34.00	34.99	85.25	91.65	-----	----- Average

